Service Manual for:

UVL601C
UVL603C
UVL603C24

Under-Vehicle Lift®

BRAUN UVL SERIES™

Series 04

THE BRAUN CORPORATION®

www.braunability.com/international ISO 9001:2008

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37274 Rev. A

January

2012

Original Instructions

CE

Congratulations

We at The Braun Corporation wish to express our fullest appreciation on your new purchase. With you in mind, our skilled craftsmen have designed and assembled the finest lift available.

This manual provides maintenance and service-related material. Braun UVL Series™ lifts are built for dependability and will provide years of pleasure and independence as long as the lift is properly maintained and operated by an instructed person.

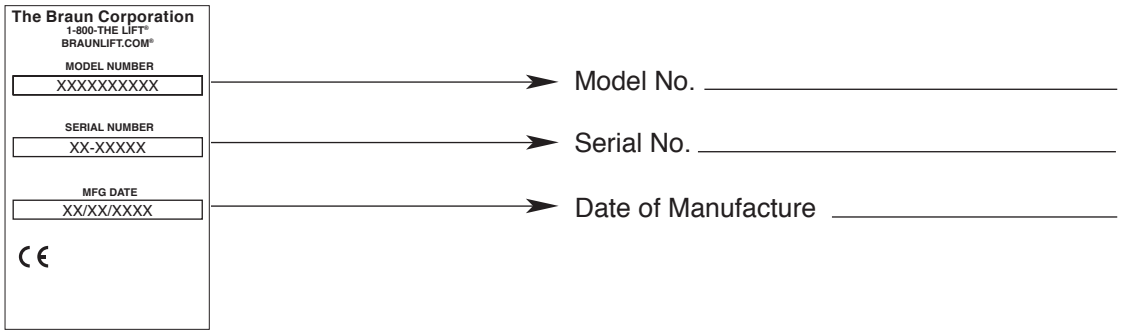
Sincerely,
THE BRAUN CORPORATION

Ralph W. Braun
Chief Executive Officer

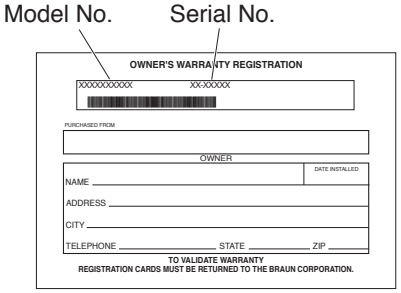
Warranty

Consult your local Braun dealer regarding warranty policy.

www.braunlift.com/international



Sample Serial No./Series No. Identification Tag



Sample Warranty/Registration Card

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Document Cross Reference

Owner Manual #37275

Service Safety Precautions

Safety Symbols

SAFETY FIRST! Know That....

A The information contained in this manual and supplements (if included), is provided for your use and safety. Familiarity with proper installation, operation, maintenance and service procedures is necessary to ensure safe, troublefree lift operation. Safety precautions are provided to identify potentially hazardous situations and provide instruction on how to avoid them.

B

⚠WARNING

This symbol indicates important safety information regarding a potentially hazardous situation that could result in serious bodily injury and/or property damage.

C

⚠CAUTION

This symbol indicates important information regarding how to avoid a hazardous situation that could result in minor personal injury or property damage.

D **NOTICE** Additional information provided to help clarify or detail a specific subject.

E

This symbol indicates that there are dangerous high voltages present inside the enclosure of this product. To reduce the risk of fire or electric shock, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. Refer servicing to qualified service personel only.

F

This symbol indicates that a condition where damage to the equipment resulting injury could occur if operational procedures are not followed. To reduce the risk of damage or injury, refer to accompanying documents, follow all steps or procedures as instructed.

G

This symbol indicates an area to avoid bodily contact to prevent injury.

H

This symbol indicates the presence of high pressure hydraulic hoses. Use appropriate personal protective equipment when working on hydraulic system.

I

This symbol indicates the presence of a fire hazard. Avoid open flames or sparks when working with flammable materials to prevent injury or damage.

These symbols will appear throughout this manual as well as on the labels posted on your lift.
Recognize the seriousness of this information.

Service Safety Precautions

Service Safety Precautions

⚠WARNING

If maintenance or repair procedures cannot be completed exactly as provided in this manual or if the instructions are not fully understood, contact The Braun Corporation immediately. Failure to do so may result in serious bodily injury and/or property damage.

⚠WARNING Read this manual, supplement(s) and operating instructions decals before performing operation or service procedures.

⚠WARNING Use appropriate personal protective equipment when servicing the lift.

⚠WARNING Check for obstructions such as gas lines, wires, exhaust, etc. before drilling or cutting on vehicle.

⚠WARNING Route all cables clear of exhaust system, other hot areas, moving parts, wet areas, etc.

⚠WARNING Risk of electrical shock or fire! Use extra care when making electrical connections. Connect and secure as outlined in Installation Instructions and Wiring Diagrams.

⚠WARNING Adjust vehicle floor level positioning of bridge plate before operating lift with passenger.

⚠WARNING Maintenance and repairs must be performed only by authorized service personnel.

⚠WARNING Perform maintenance and lubrication procedures exactly as outlined in the Maintenance and Lubrication Schedule contained in this manual.

⚠WARNING Disconnect the power cable at the battery prior to servicing.

⚠WARNING Never modify (alter) a Braun Corporation lift.

⚠WARNING Replacement parts must be Braun authorized replacements.

⚠WARNING Never install screws or fasteners (other than factory equipped).

⚠WARNING Whenever replacing a hydraulic cylinder or seals, lower platform fully.

⚠WARNING Failure to follow these safety precautions may result in serious bodily injury and/or property damage.

Lift Specifications

The lift must be installed, operated, and maintained as detailed in applicable manual. Any use of equipment other than instructed in this manual is prohibited.

The UVL601C and UVL603C have completed 15,600 cycles with a 340kg (750 lb.) load and a static load test with a 1020 kg (2250 lb) load.

Operating Temperature

This equipment will operate in its intended ambient at a minimum between +5ºC and +40ºC.

Relative Humidity

This equipment will operate correctly within an environment at 50% RH, at 40ºC.

Altitude

This equipment will operate correctly up to 1000m above mean sea level.

Sound Pressure Level

The emission sound pressure level at the operator's position is expected not to exceed 70 db(A).

Transportation and Storage

This equipment will withstand, or has been protected against, transportation and storage temperatures of -25ºC to +55ºC, and for short periods of up to +70ºC.

The lift has been packaged to prevent damage from the effects of normal humidity, vibration, and shock.

Power Requirements

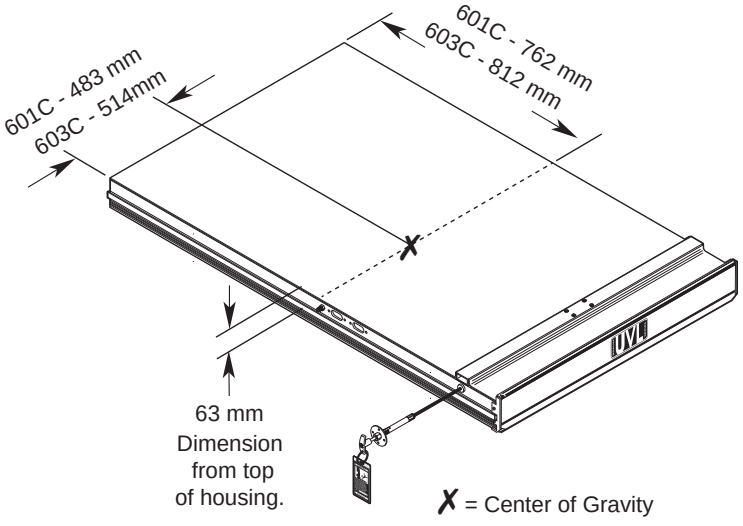
12 VDC -- UVL601C and UVL603C 24 VDC -- UVL603C24

Lift Weight (Installed)

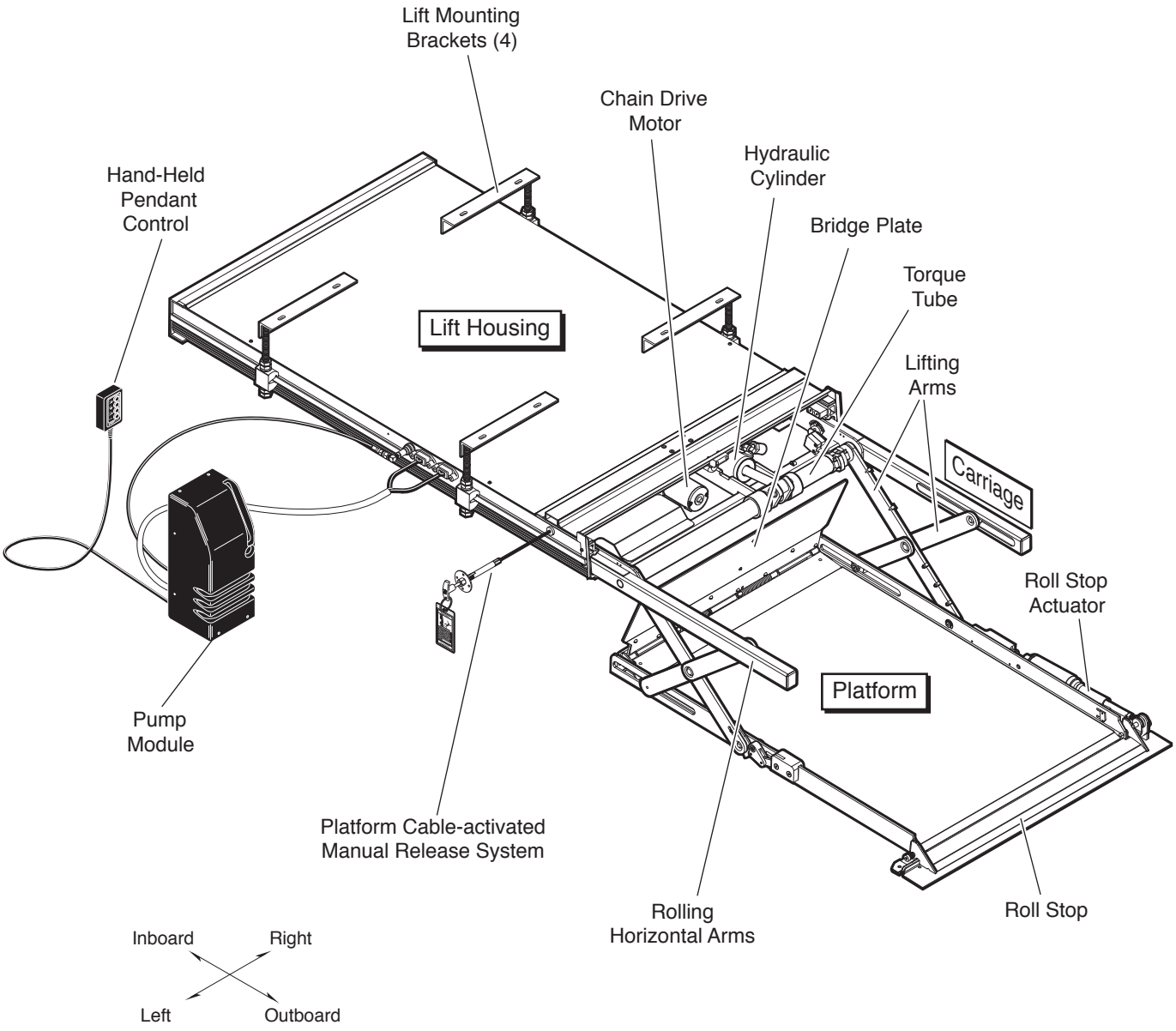
UVL601C -- 155 kg (341 lbs) UVL603C and UVL603C24 -- 166 kg (365 lbs)

Lifting Capacity

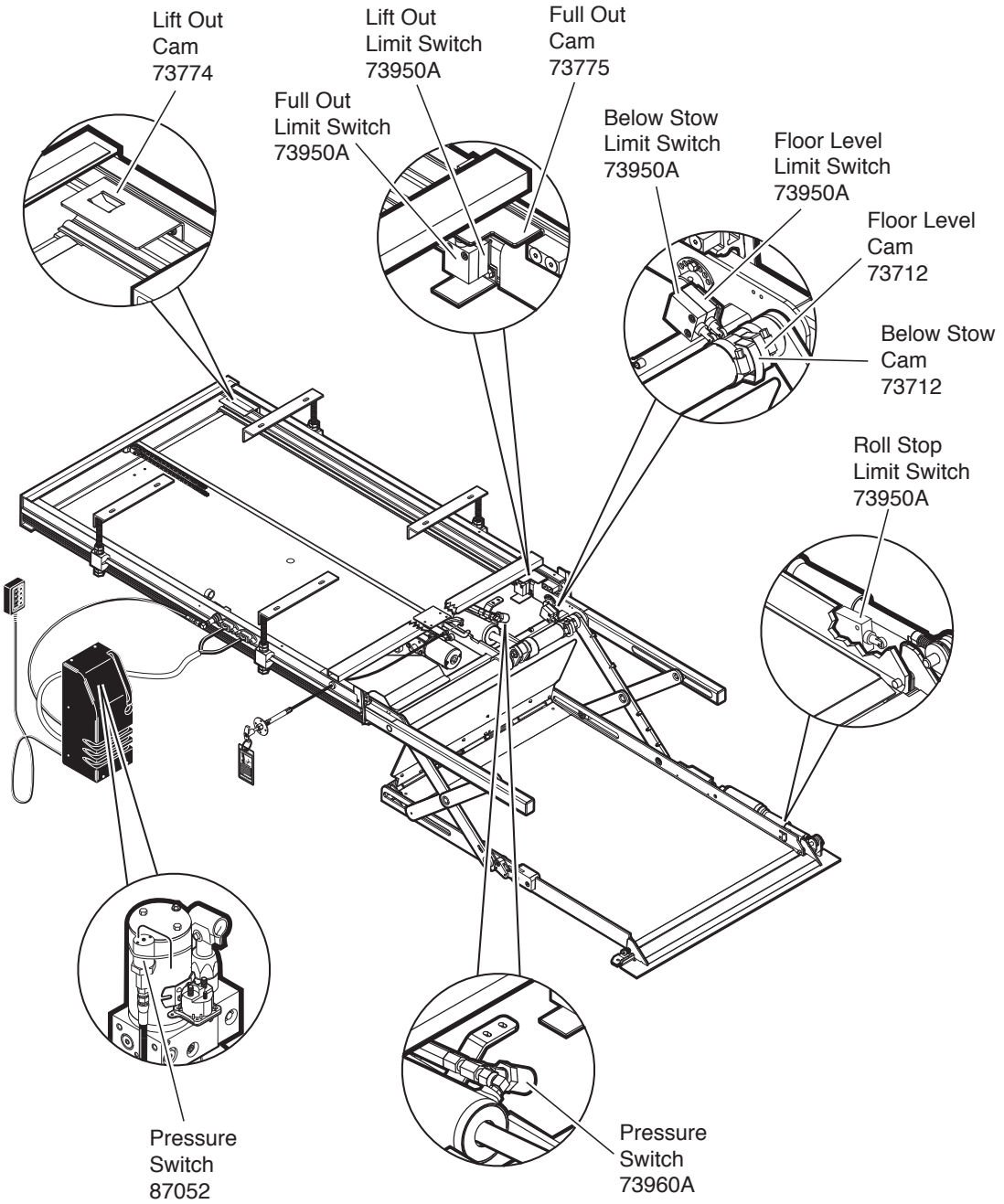
Maximum 340 kg (750 lbs.)

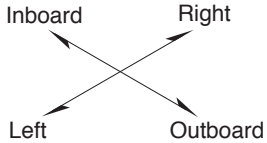


Lift Terminology



Switch and Sensor Locations





Switch LED Diagnostics

Lift Out Switch: The Lift Out Switch stops inward travel of the carriage/platform during Stow function (activated by the housing-mounted Lift Out Cam). Move cam in to increase inward travel. Move cam out to decrease inward travel. Diagnostic LED “LIFT OUT” will be illuminated when the switch is not contacting the cam.

Full Out Switch: The Full Out Switch stops outward travel of the carriage/platform during Deploy (Up/Down) functions (activated by the housing-mounted Full Out Cam). Move cam in to decrease outward travel. Move cam out to increase outward travel. Carriage rollers must be inside housing a minimum 1.3 cm (1/2"). The platform will not raise or lower until this switch is activated. Diagnostic LED “FULL OUT” will be illuminated when the switch is contacting the cam.

Floor Level Switch: Diagnostic LED “FL LVL” will be illuminated when the switch is contacting the cam. Detailed on page 8.

Below Stow (Stow Start) Switch: The Below Stow Switch controls the height of the carriage/platform before it moves inward during the Stow function (activated by the torque tube-mounted Stow Start Cam). Rotate the cam in to decrease platform height. Rotate the cam out to increase platform height. Adjust cam so bottom of platform is flush with the horizontal arms when switch is activated. Diagnostic LED “BELOW” will be illuminated when platform is at stow start height or below.

Carriage Adjustments

Carriage Ride Height Adjustment

The carriage horizontal arms move (roll) in and out of the housing tracks on roller bearings. Following installation or extensive lift operation, clearance between horizontal arms and tracks may diminish. The eccentric shaft mounting plate allows height adjustment.

Remove eccentric plate mounting screw. Using screwdriver or small rod, rotate the shaft clockwise to increase carriage height. Rotate the shaft counterclockwise to decrease carriage height. Reinstall mounting screw in nearest retainer hole. Adjust left and right side eccentric shafts (screw positions may vary from side to side). Adjust height such that horizontal arms do not contact top or bottom of tracks (align center).

Drive Chain Adjustment

In event the drive chain sags 1.3 cm (1/2") or more, adjust tension as detailed. Tighten to eliminate visible sag but do not overtighten.

1. Unlock and pull the manual release cable and lock in released position.
2. Manually extend platform carriage 2/3 full out.
3. Remove adjustment bolt (tensioner) access cover.
4. Use deep well socket (long key sleeve) to loosen outside jam nut. Tighten inside jam nut to eliminate visible chain sag but do not overtighten.
5. Lock jam nuts together. Unlock and push the manual cable in fully. Lock release cable. Move the platform in and out until platform chain release assembly engages chain.

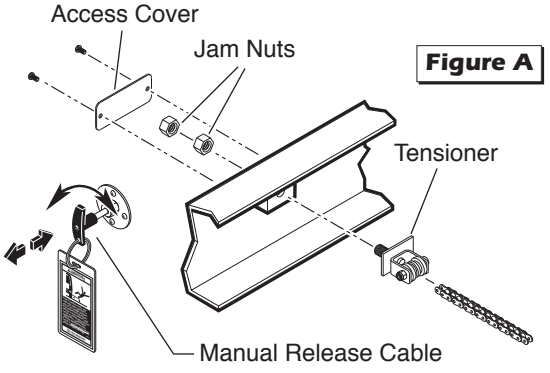


Figure A

Floor Level and Bridge Plate Adjustments

Achieving proper floor level positioning of the platform and bridge plate requires a combination of Floor Level switch adjustment and bridge plate adjustment. Both are factory set, but floor level positioning must be inspected during installation procedures (will vary per vehicle application).

Floor Level Requirements: When the lift is positioned at floor level (raised fully), the bottom of the platform must be above floor level and the bridge plate must rest solidly on vehicle floor with a minimum of 3.8 cm (1.5") of overlap.

Ensure the lift is positioned and secured as specified in the instructions supplied with the lift.

Adjust the Floor Level switch first (detailed below). If the bridge plate does not rest solidly on vehicle floor, adjust the bridge plate cam as detailed in Cam Adjustment (adjust cam only if necessary).

⚠CAUTION

Do not adjust bridge plate linkage rod. Linkage rod adjustment may result in lift damage.

Do not adjust the bridge plate linkage rod (see Photo J on page 11). The linkage rod should be adjusted to increase usable platform length only (following all other procedures).

Floor Level Switch Adjustment

The Floor Level switch stops upward travel of the platform during the Up function (activated by the torque tube-mounted Floor Level cam).

1. Position the bottom of the lift platform 2.54 cm (1") above floor level using the manual hand pump. See Figure B.

2. Loosen the clamp securing the torque tube-mounted Floor Level cam. See Photo A. Rotate the cam until the Floor Level switch is activated (cam depresses switch). Tighten the clamp securing the cam.

   Hydraulic pressure may affect platform height slightly. Fine tuning adjustment (tweaking) of the Floor Level switch (cam) may be required.

3. Using the control pendant, check floor level position by lowering the platform to stow level and then pressing the UP button until the platform raises fully (stops).

   If the bridge plate rests solidly on vehicle floor and has a minimum of 3.8 cm (1.5") of vehicle floor overlap, move to page 10 and check the usable platform length as outlined.

4. If the bridge plate does not rest on the vehicle floor (hovers above floor) - adjust the cam as detailed in the following section.

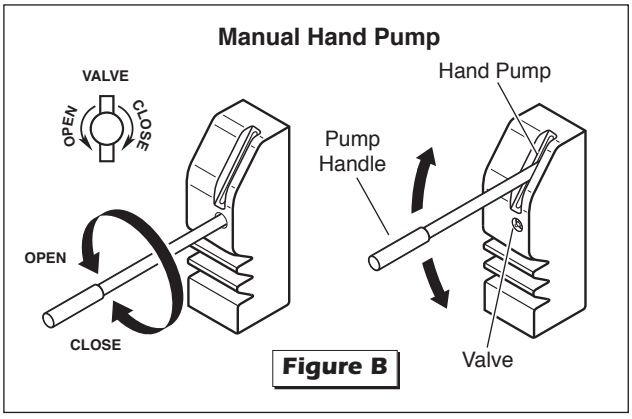
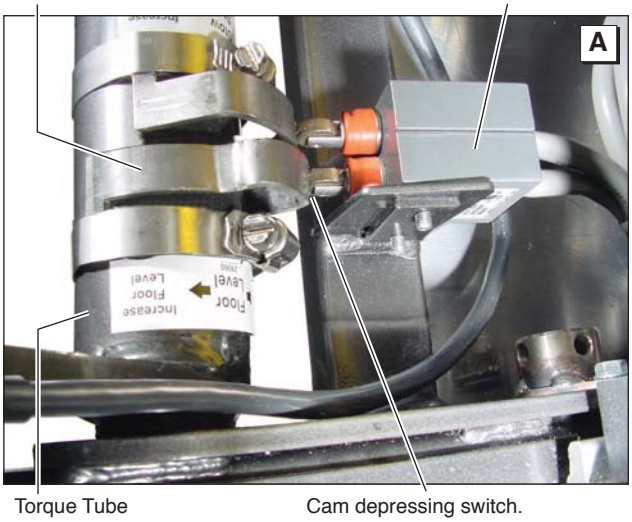


Figure B



Floor Level and Bridge Plate Adjustments

Bridge Plate Cam Adjustment

Adjust the Floor Level switch first (detailed in previous section). If the Floor Level Requirements (at right) are not met - adjust the bridge plate cam as detailed in the following procedures (lift in photos is not a UVL601C/ UVL603C).

1. Position the lift platform below stow level. See Photo B. Lowering the platform will allow access to the cam bolt securement nut. See Photo D.

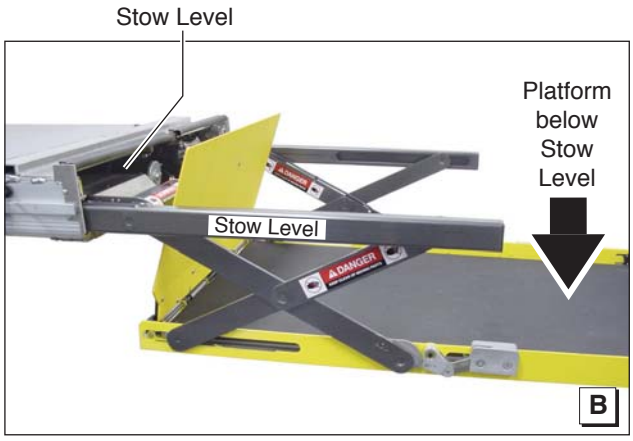
2. Remove the 1/4" serrated flange nut securing the lifting arm cam bolt. See Photos C and D. Do not remove the bolt.

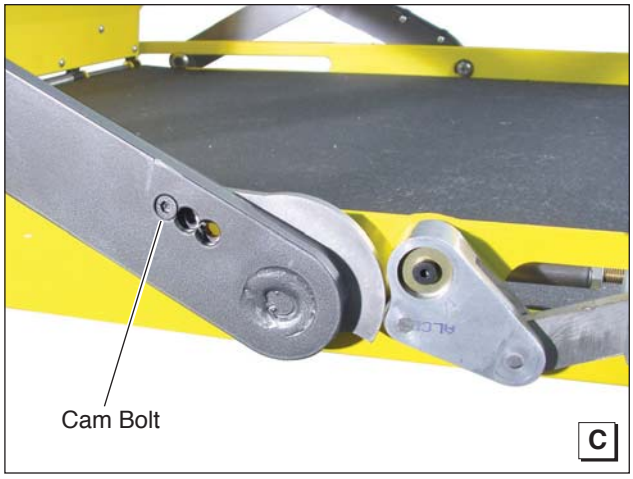
3. Using the control pendant, press the UP button until the platform raises fully (stops).

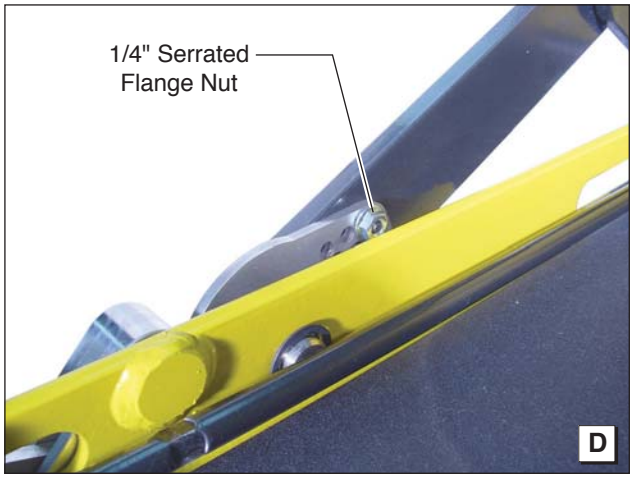
4. Remove the cam securement bolt (lift bridge plate to relieve pressure on bolt). Allow the bridge plate to rest on the floor.

Continued

Floor Level Requirements: When the lift is positioned at floor level (raised fully), the bottom of the platform must be above floor level and the bridge plate must rest solidly on vehicle floor and have a minimum of 3.8 cm (1.5") of vehicle floor overlap.







Floor Level and Bridge Plate Adjustments

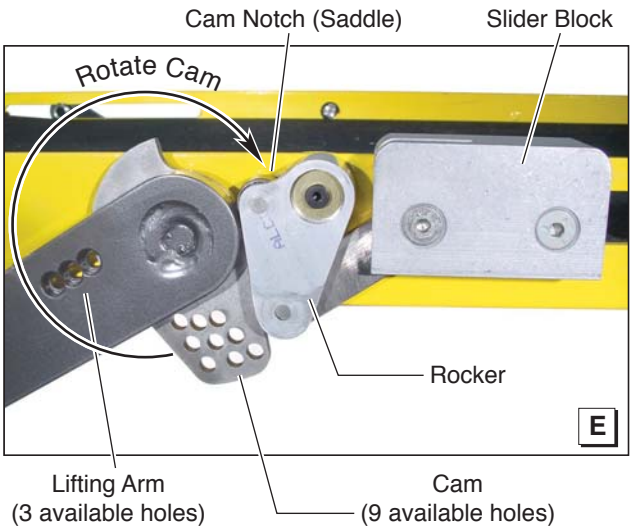
Bridge Plate Cam Adjustment

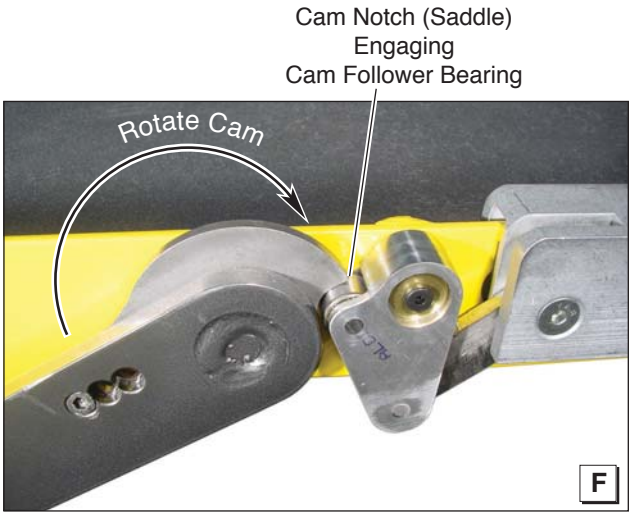
5. Rotate the cam so the cam follower bearing engages the cam notch (saddle). See Photos E and F.

6. Reinstall the cam securement bolt in one of the three lifting arm holes that aligns best with one of the nine cam holes. See Photos E and F. Reposition the cam bolt flange lock nut. Tighten securely.

7. Use the control pendant to lower lift platform to stow level and then raise platform fully to floor level (stops). Verify Floor Level Requirements (see previous page).

   Note: Achieving proper floor level positioning of the platform and bridge plate requires a combination of floor level switch adjustment and bridge plate cam adjustment. Adjust as needed to meet Floor Level Requirements.





Floor Level and Bridge Plate Adjustments

Usable Platform Length

⚠CAUTION

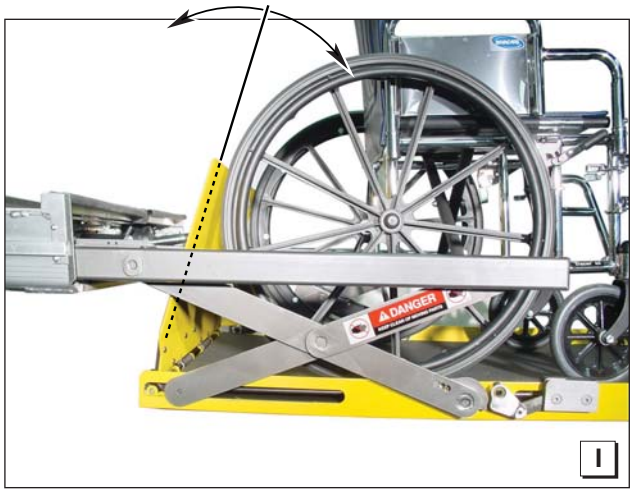
Improper bridge plate linkage rod adjustment may result in lift damage.

Do not adjust the bridge plate linkage rod unless extra usable platform length is needed. See Photo I.

If the angle of the bridge plate (when in the vertical position) restricts the usable platform length for the wheelchair passenger, adjustment of the linkage rod will change the angle.

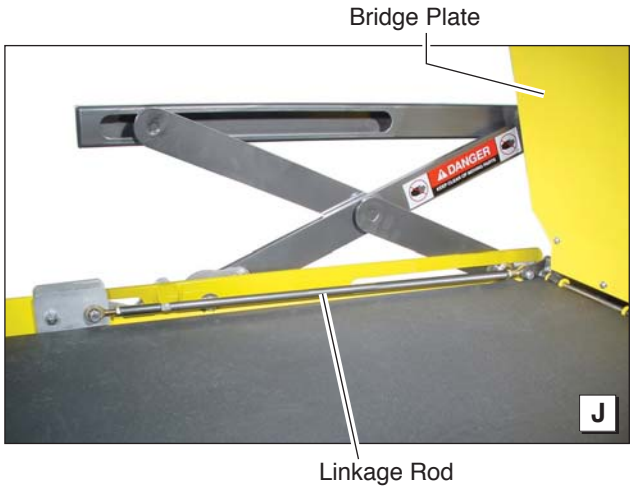
Adjust the bridge plate as detailed in the previous procedures. Then, adjust the linkage rod as detailed (only if necessary). If the linkage rod is over adjusted (too long or too short), it will exceed the travel of the slider block resulting in damage to the cam follower bearing, the cam and/or other components.

Linkage rod adjustment affects angle of bridge plate (vertical position).



Linkage Rod Adjustment

1. Position the lift platform below stow level.
2. Loosen the jam nuts at each end of the linkage rod. Adjust rod length as needed. Minimize adjustment.
3. Carefully check the bridge plate angle and operation using the hand pump. Ensure the linkage rod has not been over adjusted resulting in pressure on components (damage will result).
4. Tighten the linkage rod jam nuts.



Static and Dynamic Tests

Compatibility between the lift and the vehicle

The installer shall confirm the compatibility between the lift and the vehicle.

Static Test

Deformation

The unladen platform is positioned mid-way between ground level and vehicle floor level and measurements are taken of the height of the platform and its angular attitude relative to the vehicle floor.

A load of 425k is applied to the platform and subsequently removed.

By repeating measurements of the height and attitude of the platform, verify that no permanent deformation has occurred in any part of the lift or its attachment to the vehicle which could affect the function of the lift.

Drift

A load of 425kg is applied to the platform, positioned at floor level. Measurements are taken of the height of the platform and its angular attitude relative to the vehicle floor. These measurements are repeated after a 15 minute test period.

Verify that the vertical drift of the platform between the two measurements has not exceeded 15mm.

Verify that the angular drift of the platform between the two measurements has not exceeded 2º.

If lift does drift:

1. Deploy lift to ground level.

2. Press circuit board manual override buttons L-UP and L-DN for 20 seconds.

3. Open manual down valve 1 turn and press “UP” on hand pendant for 20 seconds. Close valve.

Test to Verify that the Lift Cannot Lift Excessive Load

A load of 425kg is applied to the platform, positioned at ground level. Actuate the “UP” control and verify that the platform does not lift (tilt is permissible).

1. Lower platform to the ground.

2. Place 425kg at center of platform.

3. Press up switch and verify platform does not lift (tilt is permissible).

4. If platform does not lift, proceed to Dynamic Test. If platform does lift, proceed to step 5, pump relief valve adjustment is necessary.

5. Access relief valve through circuit board mounting plate access hole. Loosen 9/16" hex nut on the relief valve adjustment screw (do not remove hex nut).

6. Turn adjustment screw counterclockwise1/8 turn.

7. Press up switch and verify platform does not lift (tilt is permissible).

8. If platform does not lift, tighten 9/16" hex nut (do not turn relief valve adjustment screw while tightening hex nut). If platform does lift, repeat steps 6 through 8

Static and Dynamic Tests

Dynamic Test

With 340kg applied to the platform, verify that the lift is able to operate throughout its full range of normal lifting and lowering.

1. Lower platform to the ground.

2. Place 340kg at center of platform.

3. Press up switch and verify that the lift is able to operate throughout its full range of normal lifting and lowering movements.

4. If platform is able to operate throughout its full range of normal lifting and lowering movements, no adjustment is necessary. If platform does not lift, proceed to step 5, pump relief valve adjustment is necessary.

5. Access relief valve through circuit board mounting plate access hole. Loosen 9/16" hex nut on the relief valve adjustment screw (do not remove hex nut).

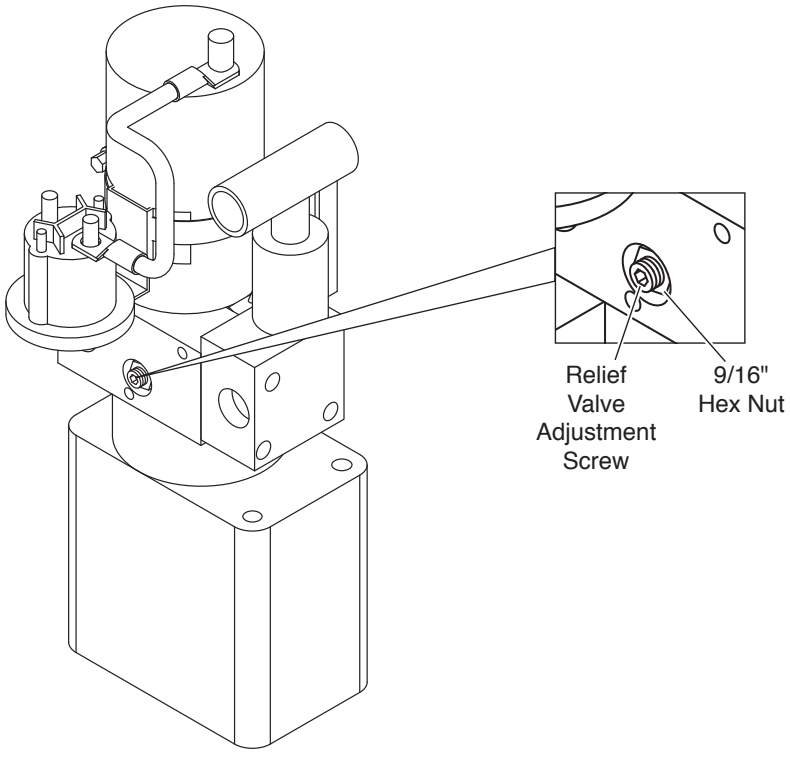
6. Turn adjustment screw clockwise 1/8 turn.

7. Press up switch and verify lift is able to operate throughout its full range of normal lifting and lowering movement.

8. If lift does not operate throughout its full range, repeat steps 6 through 8. If lift does operate throughout its full range, tighten 9/16" hex nut (do not turn relief valve adjustment screw while tightening hex nut).

Test of Operations and Safety Functions

All functions of the lift and operations of all safety devices are verified after the static and dynamic tests have been completed. These tests do not apply to pipe break valves nor non-resettable safety devices such as electrical fuses (These items are the subject of a manufacturer's type test).



Maintenance and Lubrication

Proper maintenance is necessary to ensure safe, trouble-free lift operation. Inspecting the lift for any wear, damage or other abnormal conditions should be a part of the transit agency daily service program. Simple inspections can detect potential problems.

Park vehicle on a level surface clear of traffic and bystanders. Place vehicle transmission in “Park” and engage parking brake. Deploy lift to ground level. Provide adequate work space around fully-deployed lift. Perform specified maintenance and lubrication procedures (position lift as required).

Pump Module: When cleaning the exterior of the pump module, first disconnect the unit from its power source. Do not use liquid cleaners, aerosols, abrasive pads, scouring powders or solvents, such as benzine or alcohol. Use a soft cloth lightly moistened with a mild detergent solution. Ensure the surface cleaned is fully dry before reconnecting power.

Other Components: Clean components and the surrounding area before applying lubricants. Clean only with mild detergent and water. Do not clean with solvents. Allow the lift to dry thoroughly and apply lubricants as specified after every cleaning.

LPS2 General Purpose Penetrating Oil is recommended where Light Oil is called out. Use of improper lubricants can attract dirt or other contaminants which could result in wear or damage to components. Platform components exposed to contaminants when lowered to the ground may require extra attention.

⚠WARNING

Maintenance and lubrication procedures must be performed as specified by an authorized service technician. Failure to do so may result in serious bodily injury and/or property damage.

Perform maintenance and lubrication procedures at the scheduled intervals according to the number of cycles. When servicing the lift at the recommended intervals, inspection and lubrication procedures specified in the previous sections should be repeated.

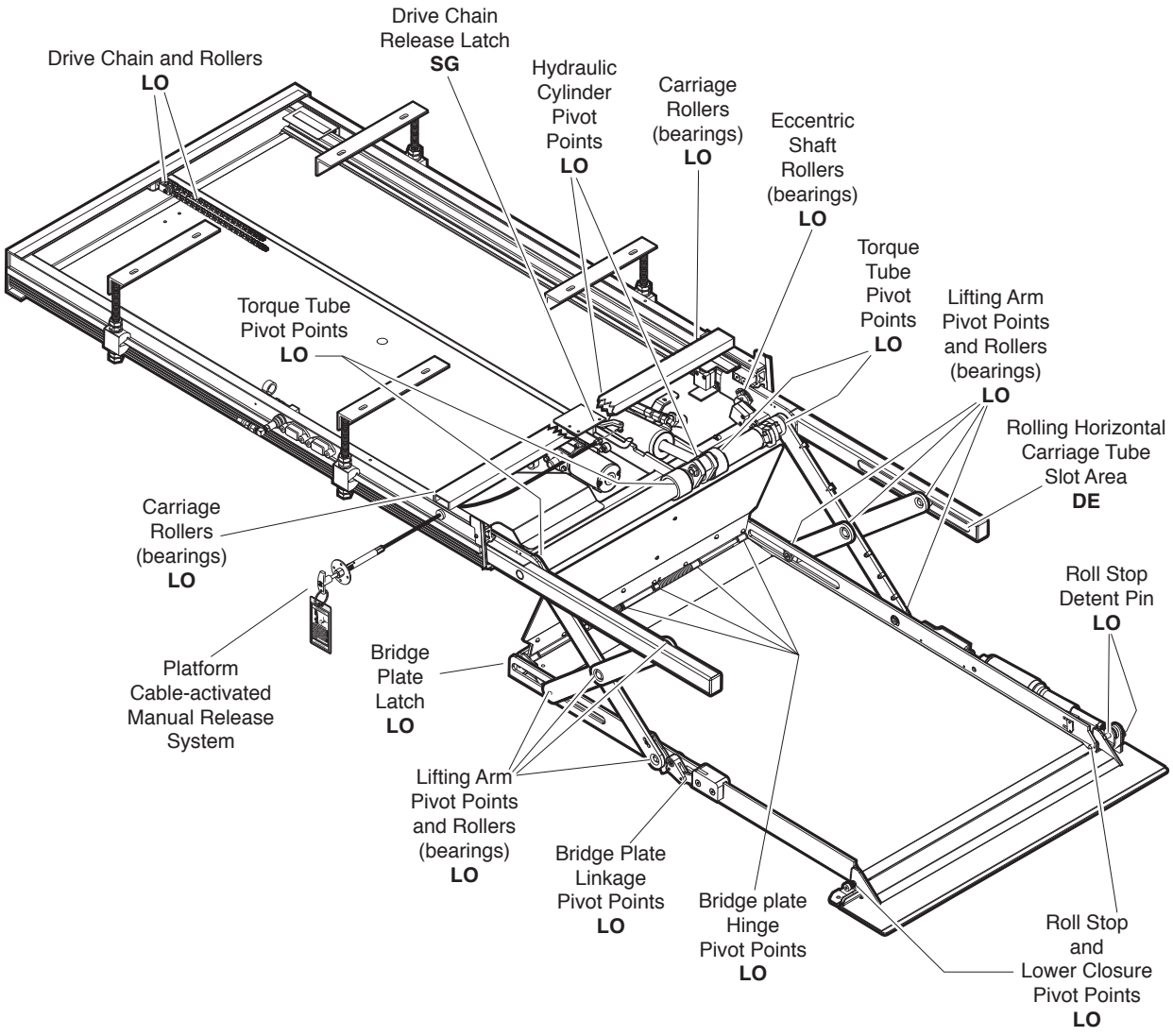
These intervals are a general guideline for scheduling maintenance procedures and will vary according to lift use and conditions. Lifts exposed to severe conditions (weather, environment, contamination, heavy usage, etc.) may require inspection and maintenance procedures to be performed more often than specified.

Records of maintainence and service procedures should be maintained.

Discontinue lift use if maintenance and lubrication procedures are not properly performed, or if there is any sign of wear, damage or improper operation. Contact your authorized representative.

Maintenance and Lubrication

Lubrication Diagram



See the Maintenance/Lubrication Schedule for recommended applications per number of cycles.

Lubricant	Type	Specified (recommended) Lubricant	Available Amount	Braun Part No.
LO - Light Oil	Light Penetrating Oil (30 weight or equivalent)	LPS2, General Purpose Penetrating Oil	16 oz. Aerosol Can	15807
DE - Door-Ease	Stainless Stick Style (tube)	Door-Ease Stick (tube)	1.68 oz.	15806
SG - Synthetic Grease	Synthetic Grease (Multipurpose)	Mobiltemp SHC32	12.5 oz. Tube	28598

750 Cycles	Roll stop and lower closure pivot points (2)	Apply Light Oil - See Lubrication Diagram
	Roll stop detent pin pivot points (2)	Apply Light Oil - See Lubrication Diagram
	Bridge Plate hinge pivot points	Apply Light Oil - See Lubrication Diagram
	Bridge plate linkage pivot points	Apply Light Oil - See Lubrication Diagram
	Lifting arm pivot points and rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Inspect roll stop and lower closure for proper operation	Correct or replace damaged parts.
	Inspect roll stop seal and lower closure gasket	Resecure, replace or correct as needed
	Inspect roll stop detent pin hairpin cotter	Ensure hairpin cotter is present and can be removed and inserted easily. Resecure, replace or correct as needed.
	Inspect lift for wear, damage or any abnormal condition	Correct as needed.
	Inspect lift for rattles	Correct as needed.
	Check drive chain tension.	Pull out and lock manual release cable. Adjust chain tension as needed. See Drive Chain Adjustment.
	Inspect bridge plate and linkage for: • Proper operation • Positive securement • Wear or damage • Proper adjustment	Resecure, replace or correct as needed. See Floor Level Switch and Bridge Plate Adjustment Instructions.
	Check carriage ride height in housing	Adjust as needed. See Carriage Ride Height Adjustment.
	Check stow height/lifting arm alignment	Lifting arms should be horizontal, aligned with each other and aligned with carriage. Adjust as needed. See LED Diagnostics for Below Stow (Stow Start) switch adjustment.
	Inspect wiring harnesses for securement, wear or other damage	Resecure, replace or correct as needed
	Check lower pan securement	Resecure, replace damaged parts or correct as needed.
	Torque tube pivot bearings (4 places)	Apply Light Oil - See Lubrication Diagram

1500 Cycles	Carriage rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Eccentric shaft rollers (bearings)	Apply Light Oil - See Lubrication Diagram
	Rolling horizontal carriage arm slot area.	Apply Door Ease - See Lubrication Diagram. Apply to the surface area around both slots and wipe off excess.
	Hydraulic cylinder pivot points (4 per cylinder)	Apply Light Oil - See Lubrication Diagram
	Drive chain and chain rollers	Apply Light Oil - See Lubrication Diagram
	Drive chain release latch mechanism	Apply Synthetic Grease - See Lubrication Diagram
	Deploy lift, remove lower pan and blow out housing and platform. Clean housing tracks.	Use compressor and nozzle to remove all debris from housing. Use clean cloth and solvent to clean tracks. Clean lower pan slot and apply antiseize to slot before reinstalling pan.
	Check drive chain tensioner, jam nuts and connecting link for securement and/or misalignment.	Correct or replace damaged parts and/or relubricate. See Drive Chain Adjustment.
	Inspect drive chain release latch mechanism for proper operation, positive securement, wear or other damage	Correct or replace damaged parts and/or relubricate.
	Inspect platform cable-activated manual release system (T-handle/cable assembly and carriage movement)	Ensure T-handle release and cable assembly operate properly. Ensure carriage can be manually extended and retracted freely.
	Inspect limit switches and cams for securement and proper adjustment	Resecure, replace or adjust as needed. See LED Switch Adjustments.
	Inspect carriage, lifting arm and eccentric shaft rollers (bearings) for wear or damage, positive securement and proper operation	Correct, replace damaged parts and/or relubricate.
	Inspect external snap rings (e-clips): • Carriage roller bearings (4) • Lower lifting arm pins (4) • Eccentric shaft track roller bearing (1)	Resecure, replace or correct as needed.
	Inspect lower lifting arm pins for wear or damage, positive securement and proper adjustment	Resecure, replace damaged parts, lubricate or correct as needed.

Maintenance and Lubrication

1500 Cycles	Inspect eccentric shaft pins, bearing mounting screw, washers and securement hardware for wear or damage, positive securement and proper operation	Resecure, replace damaged parts, lubricate or correct as needed. See Carriage Ride Height Adjustment.
	Inspect torque tube cams for securement, wear or damage	Resecure, replace or correct as needed.
	Inspect housing cam brackets for securement, wear or damage	Resecure, replace or correct as needed.
	Inspect cylinder(s), hoses, fittings and hydraulic connections for wear, damage or leaks	Tighten, repair or replace if needed.
	Inspect power cable	Resecure, repair or replace if needed.

4500 Cycles	Hydraulic Fluid (Pump) - Check level. Note: Fluid should be changed if there is visible contamination. Inspect the hydraulic system (cylinder, hoses, fittings, seals, etc.) for leaks if fluid level is low.	Use 5606 aviation fluid only (part 87010R). Do not mix with Dextron III or other hydraulic fluids. Check fluid level with platform lowered fully. Fill to maximum fluid level indicated on reservior (specified on decal). Do not overfill. If fluid level decal is not present - measure 22 mm (7/8") from the bottom of the fill tube to locate fluid level.
	Inspect lifting arm bushings and pivot pins for visible wear or damage	Replace if needed.
	Inspect roll stop pivot pin mounting bolts (2)	Tighten or replace if needed
	Mounting	Check to see that the lift is securely anchored to the vehicle and there are no loose bolts, broken welds, or stress fractures.
	Decals and Antiskid	Replace decals if worn, missing or illegible. Replace antiskid if worn or missing.

Consecutive 750 Cycle Intervals	Repeat all previously listed inspection, lubrication, and maintenance procedures at 750 cycle intervals.

Lift Disposal Procedure	1. Return lift to an authorized dealer for draining of the hydraulic system. 2. Transport lift to a recycling center for recycling.

Troubleshooting Diagnosis Chart

⚠WARNING

Troubleshooting and repair procedures must be performed as specified by authorized service personnel only. Failure to do so may result in serious bodily injury and/or property damage.

If a problem occurs with your lift, discontinue operation immediately! Do not attempt repairs yourself. Contact your sales representative. The cause of the problem can be determined by locating the lift function and related symptom in the Troubleshooting Diagnosis Charts. The specific cause and remedy can then be determined by process of elimination.

A Electrical Schematic and Hydraulic Diagram are provided to aid in troubleshooting.

A Repair Parts section with exploded views and corresponding parts lists is also provided. Correct the problem if possible. If the problem continues, contact your sales representative.

FUNCTION	POSSIBLE CAUSE	REMEDY
1.00 NO OPERATION	1.11 Low Battery	Vehicle engine must be running during lift operation. Check condition of vehicle battery.
	1.12 Bad ground	Check for good ground between vehicle chas sis and aluminum manifold on power pack.
	1.13 Poor plug connections	Check all plugs for proper contact.
	1.14 Blown fuse	Check inline fuse on “12 V” wire from P.C. board. Check P.C. board mounted fuse. Check for power on terminal 8 of terminal block on P.C. board.
	1.15 Circuit Sentry	Reset or replace if necessary.
	1.16 Defective circuit breaker	Manually reset Circuit Sentry.
	1.17 Improper terminal block wiring	Check for proper wiring of terminal block.
2.00 PUMP RUNS BUT WILL NOT LIFT PLATFORM	2.11 Hydraulic valve open	Flush valve by operating manual override switches UP and DOWN at same time for 4 to 5 seconds several times.
	2.12 Manual valve open	Close manual valve. Flush valve by running UP with manual override. Open valve 4 to 5 seconds several times.
	2.13 Pump mounted horizontal	Power pack must be mounted vertically.
	2.14 No oil (low)	Check fluid level.
	2.15 Hydraulic hose not connected	Check hose connection between pump and cassette.

Troubleshooting Diagnosis Chart

FUNCTION	POSSIBLE CAUSE	REMEDY
3.00 PUMP DOES NOT RUN WITH MANUAL OVERRIDE OR HAND-HELD PENDANT	3.11 Up Solenoid	Check for power on pump “T” wire going to solenoid.
	3.12 Bad power and ground	See 1.00
4.00 LIFT WILL GO UP WITH OVERRIDE SWITCH BUT NOT WITH HAND-HELD PENDANT	4.11 FULL OUT diagnostic LED not illuminated	Check full out switch for proper operation/adjustment. Replace or adjust as necessary.
	4.12 Hand-held pendant not working properly	Check for UP diagnostic LED when hitting UP button on hand control. Replace control box as necessary.
	4.13 Roll stop switch is not activated or defective	Check diagnostic LED for roll stop (barrier) switch status. Roll stop is down or roll stop release pin partially out. Replace switch as necessary.
	4.14 See 12.0	
5.00 LIFT WILL NOT GO DOWN WITH MANUAL OVERRIDE OR WITH HAND-HELD PENDANT OR GOES DOWN SLOWLY OR DRIFTS DOWN BY ITSELF	5.11 Hydraulic down valve bad	Check for power on valve ”T” wire going to solenoid when pushing manual override or remote button. Replace if necessary.
	5.12 Dirty down valve (clogged)	Flush valve by pushing manual override up and down buttons at same time for 4 to 5 seconds several times.
6.00 LIFT WILL GO DOWN WITH OVERRIDE BUT NOT WITH HAND-HELD PENDANT	6.11 FULL OUT diagnostic LED not illuminated.	Check for proper operation of Full Out switch with diagnostic LED. Replace or adjust switch as necessary.
	6.12 Door Full Close switch (if equipped) out of adjustment or defective.	Check switch for proper operation/adjustment. Adjust or replaceswitch as necessary
	6.13 See 12.0	
7.00 LIFT WILL NOT GO OUT WITH OVERRIDE OR HAND-HELD PENDANT	7.11 Defective circuit breaker	Reset or replace if necessary.
	7.12 No power on terminal 8	Check vehicle door full open switch and wiring.
	7.13 Interlock circuit incomplete	Verify interlock installation
	7.14 Poor plug connections	Check harness connections E1, E2, B1 and B2
	7.15 Bad in/out motor	Check power at motor. Replace motor if necessary.
	7.16 Bad power and ground	See 1.00

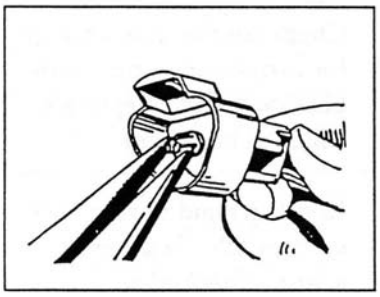
Troubleshooting Diagnosis Chart

FUNCTION	POSSIBLE CAUSE	REMEDY
8.00 LIFT WILL NOT STOW WITH HAND-HELD PENDANT	8.11 Faulty Below Stow switch. BELOW STOW (BELOW) diagnostic LED not illuminated	Check for proper operation of Below Stow switch. Replace or adjust switch as necessary.
	8.12 See 12.0	
9.00 ROLL STOP WILL NOT OPERATE UP OR DOWN WITH HAND-HELD PENDANT OR OVERRIDES Notice: Down and Barrier Down override switches must be pressed at same time to lower roll stop.	9.11 Ground Sensor pressure switch	Reset or replace if necessary.
	9.12 Poor plug connections	Check harness connectors A1 and A2, E1, N1 N2, E1,F1 and F2.
	9.13 Faulty roll stop actuator motor or actuator out of adjustment.	Check power at motor. Adjust or replace actuator if necessary.
	9.14 Bad power and ground	See 1.00
	9.12 Defective circuit breaker	Reset or replace if necessary.
	9.13 Bad relay(s)	Check Barrier Up and Barrier Down power relays. Replace if necessary.
	9.14 See 5.0	
10.00 ROLL STOP OPERATES WITH OVERRIDES BUT WILL NOT GO UP WITH HAND-HELD PENDANT	10.11 Hand-held pendant not working properly	Check for UP diagnostic LED when hitting UP button on hand control. Replace control box as necessary.
	10.12 Roll stop (Barrier Down) LED off	Check roll stop switch for proper operation with (barrier) LED on board. Replace or adjust as necessary.
	10.13 See 12.0	
11.00 ROLL STOP OPERATES WITH OVERRIDES BUT WILL NOT GO DOWN WITH HAND-HELD PENDANT	11.11 GROUND SENSOR (GND SENS) diagnostic LED not illuminated	Check Ground Sensor pressure switch. Replace or adjust as necessary.
	11.12 BELOW STOW (BELOW) diagnostic LED not illuminated	Check Below Stow switch for proper operation. Replace or adjust as necessary.
	11.13 FULL OUT diagnostic LED not illuminated	Check Full Out switch for proper operation. Replace or adjust as needed.
	11.14 See 12.0	
12.00 SWITCHES DO NOT ACTIVATE LED(S)	12.11 Improper terminal block wiring	Check terminal block for correct wiring configuration.
	12.12 No power going to switches	Check power on connector A1, pins 1 and 2.
	12.13 Faulty wiring	Check continuity of wires from switches to connector A2.
	12.14 Faulty connections	Check for proper connections on each switch and on each connector on the harnesses. Replace contact if necessary. See diagram at right.

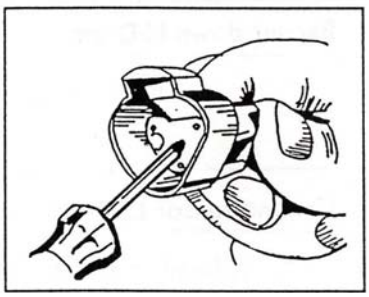
Troubleshooting Diagnosis Chart

13.00 DOORS DO NOT OPEN	13.11 Faulty wiring	Check for proper wiring to door openers.

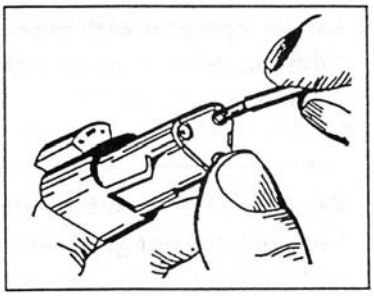
CONTACT REMOVAL



1. Remove orange wedge using needle nose pliers or a hook shaped wire to pull wedge straight out.

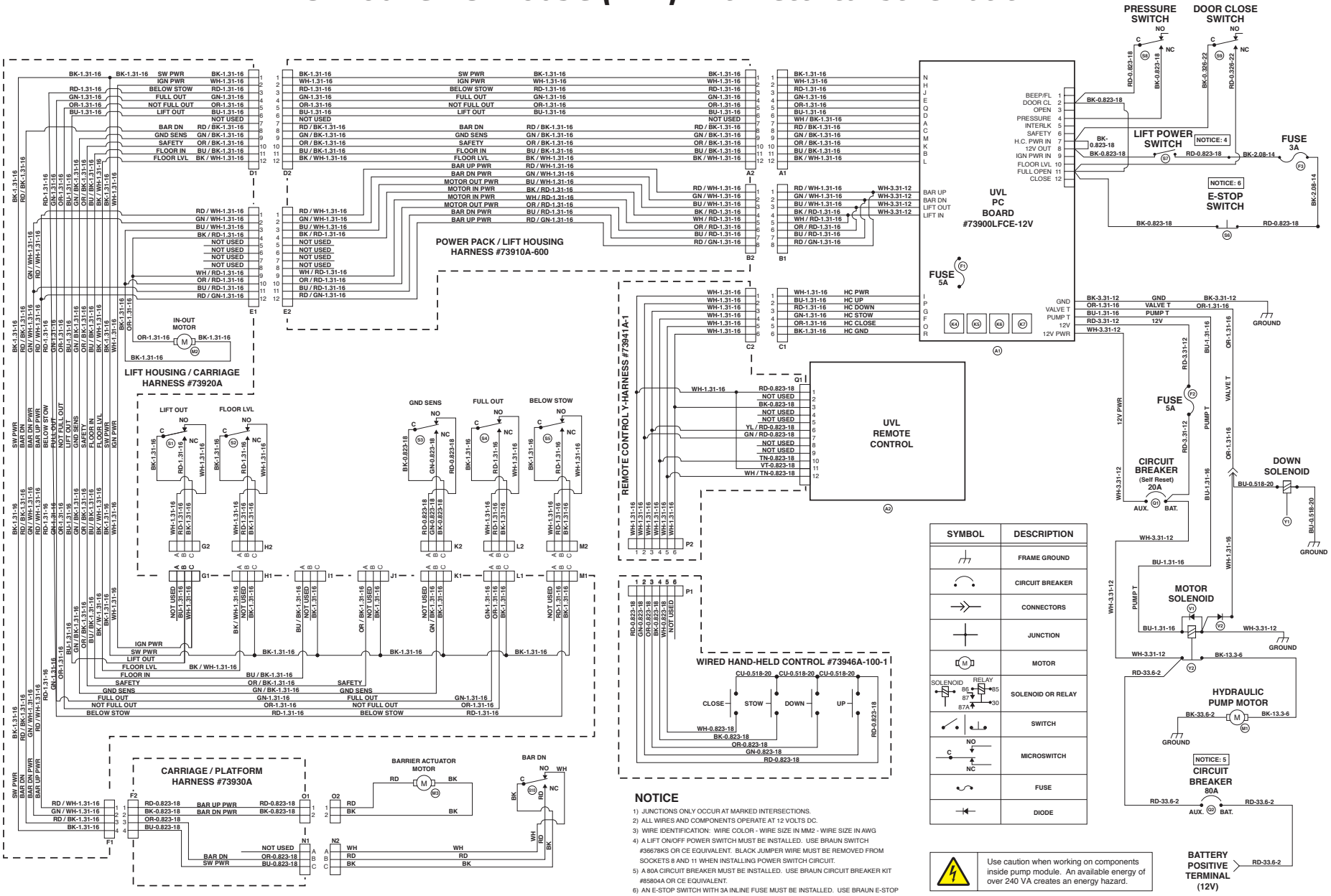


2. To remove the contacts, gently pull wire backwards, while at the same time releasing the lock ing finger by moving it away from the contact with a screwdriver.



3. Hold the rear seal in place, as removing the contact will displace the seal

UVL601C / UVL603C (12V) Lift Electrical Schematic



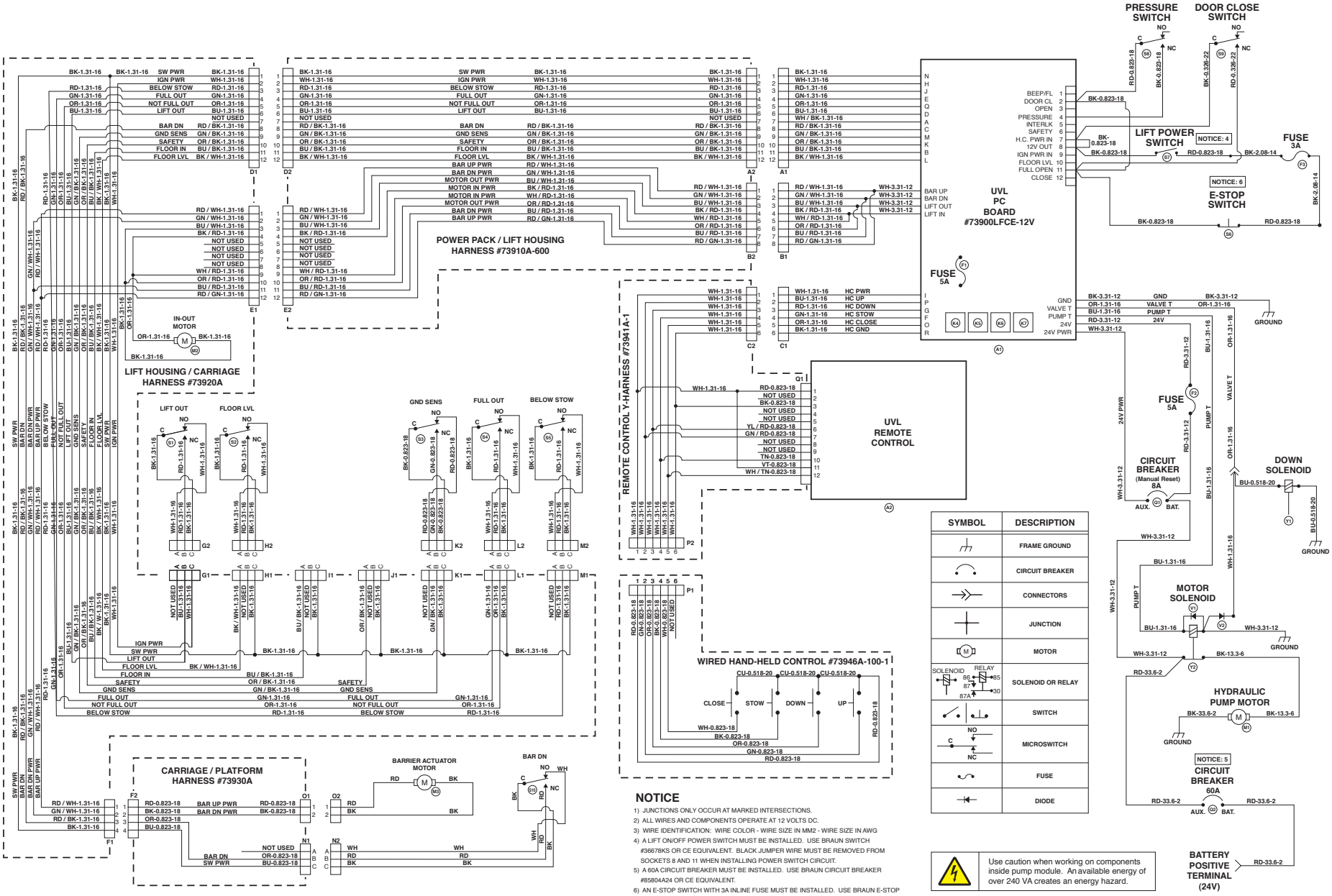
SYMBOL	DESCRIPTION
	FRAME GROUND
	CIRCUIT BREAKER
	CONNECTORS
	JUNCTION
	MOTOR
	SOLENOID OR RELAY
	SWITCH
	MICROSWITCH
	FUSE
	DIODE

NOTICE

1) JUNCTIONS ONLY OCCUR AT MARKED INTERSECTIONS.
2) ALL WIRES AND COMPONENTS OPERATE AT 12 VOLTS DC.
3) WIRE IDENTIFICATION: WIRE COLOR - WIRE SIZE IN MM2 - WIRE SIZE IN AWG
4) A LIFT ON/OFF POWER SWITCH MUST BE INSTALLED. USE BRAUN SWITCH #3667BKS OR CE EQUIVALENT. BLACK JUMPER WIRE MUST BE REMOVED FROM SOCKETS 8 AND 11 WHEN INSTALLING POWER SWITCH CIRCUIT.
5) A 80A CIRCUIT BREAKER MUST BE INSTALLED. USE BRAUN CIRCUIT BREAKER KIT #85804A OR CE EQUIVALENT.
6) AN E-STOP SWITCH WITH 3A INLINE FUSE MUST BE INSTALLED. USE BRAUN E-STOP SWITCH KIT #3667SKS OR CE EQUIVALENT.

Use caution when working on components inside pump module. An available energy of over 240 VA creates an energy hazard.

UVL603C24 (24V) Lift Electrical Schematic



SYMBOL	DESCRIPTION
	FRAME GROUND
	CIRCUIT BREAKER
	CONNECTORS
	JUNCTION
	MOTOR
	SOLENOID OR RELAY
	SWITCH
	MICROSWITCH
	FUSE
	DIODE

NOTICE

1) JUNCTIONS ONLY OCCUR AT MARKED INTERSECTIONS.
2) ALL WIRES AND COMPONENTS OPERATE AT 12 VOLTS DC.
3) WIRE IDENTIFICATION: WIRE COLOR - WIRE SIZE IN MM2 - WIRE SIZE IN AWG
4) A LIFT ON/OFF POWER SWITCH MUST BE INSTALLED. USE BRAUN SWITCH #36678KS OR CE EQUIVALENT. BLACK JUMPER WIRE MUST BE REMOVED FROM SOCKETS 8 AND 11 WHEN INSTALLING POWER SWITCH CIRCUIT.
5) A 60A CIRCUIT BREAKER MUST BE INSTALLED. USE BRAUN CIRCUIT BREAKER #85804A24 OR CE EQUIVALENT.
6) AN E-STOP SWITCH WITH 3A INLINE FUSE MUST BE INSTALLED. USE BRAUN E-STOP SWITCH KIT #36679KS OR CE EQUIVALENT.

Use caution when working on components inside pump module. An available energy of over 240 VA creates an energy hazard.

NOTES

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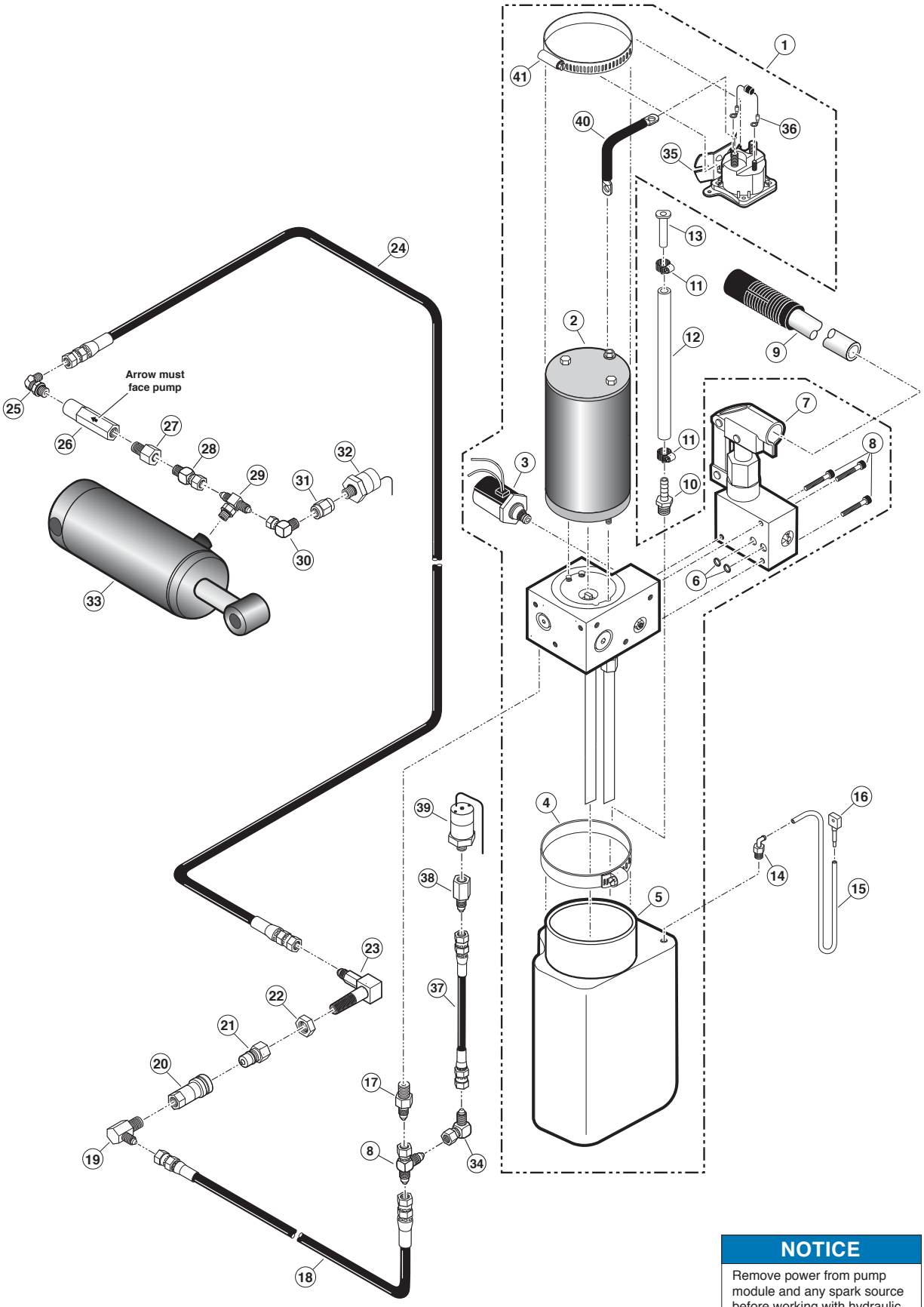
Hydraulic Parts List

UVL601C / UVL603C / UVL603C24 Series 04

Item	Qty.	Description	Part #
1	1	Pump Assembly 12 Volt - UVL Power Pack (shown)	36383
	1	Pump Assembly 24 Volt - UVL Power Pack	87060-24V
2	1	Motor, Pump - 12 Volt	14785-IS
	1	Motor, Pump - 24 Volt	16504-IS
3	1	Valve, “Down” (with Solenoid) - 12 Volt	14901
	1	Valve, "Down" (with Solenoid) - 24 Volt	16505
4	1	Clamp, Reservoir - H-48	17069
5	1	Reservoir Replacement Kit (Includes Item #10)	88188K
6	2	O-Ring (only), Hand Pump Mounting	17351
7	1	Hand Pump (Backup) with O-Rings (Includes Item #6)	87065
8	3	Screw, 1/4-20 x 1 3/4”, Allen Head	17351
9	1	Handle with Grip	17206A
10	1	Fitting, 3/8” Male NPT x 3/8” Barbed	87618
11	2	Clamp, Hose - 5/8” O.D. - Worm Drive	84325
12	1	Tubing, 3/8” x 5/8”, Tygothane - Clear	82066R012
13	1	Plug, 3/8” Plastic Hose	81580
14	1	Fitting, 90°-1/8” Male Pipe x 1/8” Barbed	87563
15	1	Tube, 1/4” O.D. x 1/8” I.D. - Plastic	81557R014
16	1	Plug, 1/8” Plastic Tube	81583
17	1	Adapter, 1/4” Male NPT x 7/16-20 Male JIC 37°	10130
18	1	Hose Assembly, 3/16” x 82” - Female Swivel 7/16-20 JIC 37°	35262A-82
19	1	Fitting, 90° - 7/16-20 Male JIC 37° x 1/4” Male NPT	87569
20	1	Coupling, Hydraulic Quick Connect x 1/4” Female NPT	87614
21	1	Nipple, Hydraulic Quick Connect x 1/4” Female NPT	87615
22	1	Nut, 9/16-18, Hex Jam	83077
23	1	Fitting Assembly, Bulk Head	73777A
24	1	Hose Assembly, 1/8” x 60” - Female Swivel 7/16-20 JIC 37°	35261A-060
25	1	Fitting, 90° - 9/16” Male O-Ring x 7/16-20 Male JIC 37°	87622
26	1	Valve, Flow Control	87049
27	1	Adaptor, Hydraulic Internal	87560
28	1	Fitting, Female Swivel 7/16-20 JIC 37° x 1/4” Male NPT	87596
29	1	Fitting, Tee - 7/16-20 Male JIC 37° x 7/16-20 Male JIC 37° x 7/16” Male O-Ring	87621
30	1	Fitting, 90° - Female Swivel 7/16-20 JIC 37° x 1/8” Male NPT	87619
31	1	Fitting, Coupling - 1/8” Female NPT x 1/8” Female NPT	87543
32	1	Switch, Pressure - Cylinder	73960A
33	1	Cylinder, UVL Retracting	87047
34	1	Fitting, 90° - Female Swivel 7/16-20 JIC 37° x 7/16-20 Male JIC 37°	87592
35	1	Solenoid, Up - Prestolite - 12V (shown)	28308
	1	Solenoid, Up - Trombetta - 24V	32930
36	1	Diode Assembly, Up Solenoid	73906A
37	1	Hose Assembly, 1/8” Female Swivel 7/16-20 JIC 37° x 4”	16004A-004
38	1	Fitting, 1/8” Female NPT x 7/16-20 Male JIC 37°	87623
39	1	Switch, Pressure - Pump	87052
40	1	Power Cable, Up Solenoid to Motor	29049
41	1	Clamp, Hose - Solenoid Mounting	29663

Hydraulics Diagram

UVL601C / UVL603C/ UVL603C24 Series 04



Use caution when working on components inside pump module. Available energy of 1680 VA creates an energy hazard.

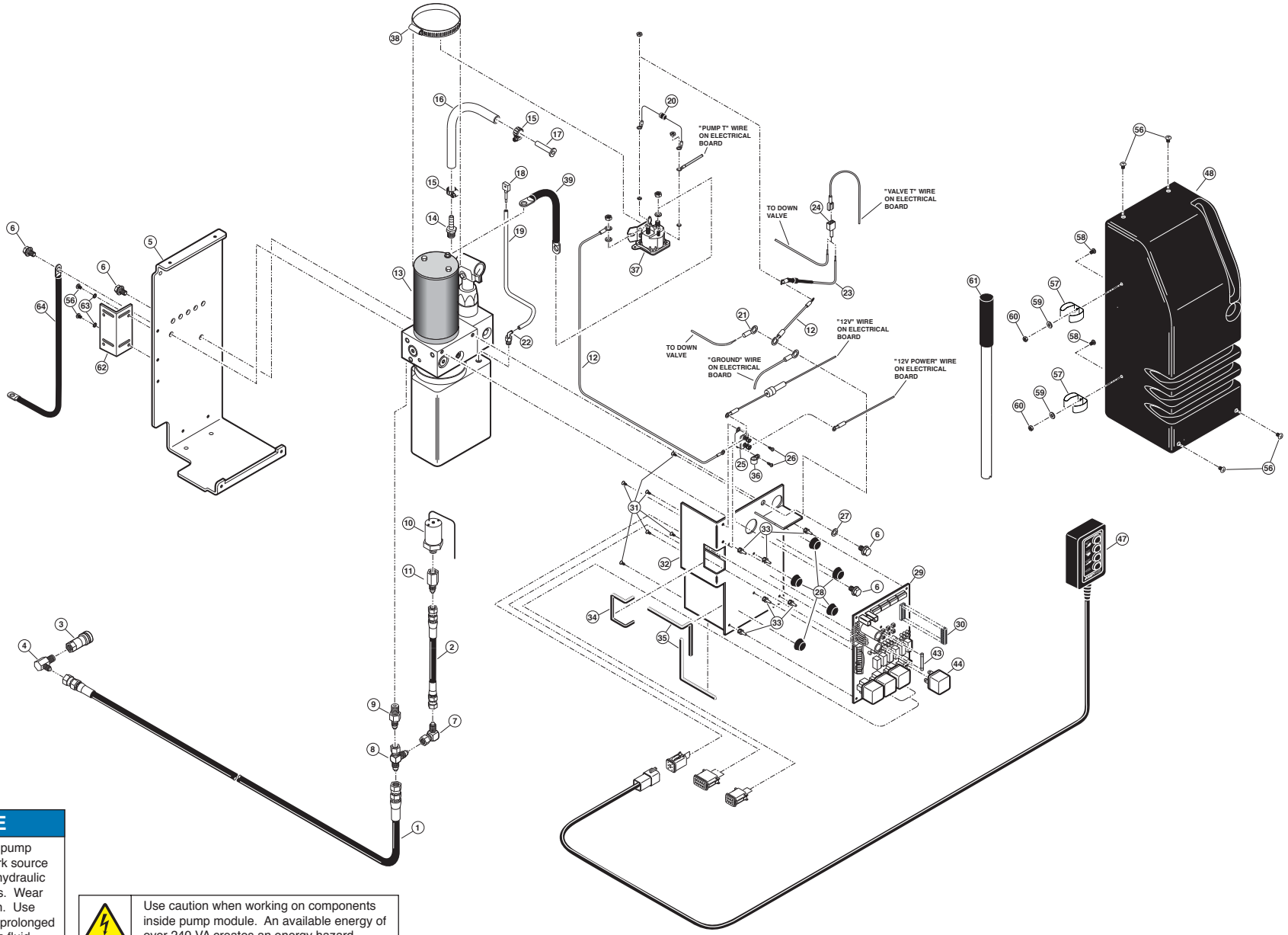
NOTICE

Remove power from pump module and any spark source before working with hydraulic fluid and components. Wear proper eye protection. Use protective gloves for prolonged contact with hydraulic fluid.

UVL601C & UVL603C (12V) Pump Module Parts List

Item	Qty.	Description	Part No.
		Pump Module, Complete (Items 1-46)	73800AC-04
1	1	Hose Assembly, 3/16" Diameter x 82"- Female 7/16-20 JIC 37°-SW/SW	35262A-82
2	1	Hose Assembly, 1/8" Diameter x 4"- Female 7/16-20 JIC 37°-SW/SW	16004A-004
3	1	Coupling, Hydraulic Quick Connect x 1/4" Female NPT	87614
4	1	Fitting, 90°- Male 7/16-20 JIC 37° x 1/4" Male NPT	87569
5	1	Plate, Power Pack Mounting	73822
6	4	Screw, 5/16-18 x 1/2", Serrated Washer Head, Hex	82881
7	1	Fitting, 90°-Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37°	87592
8	1	Fitting, Tee - Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37° x 2	87587
9	1	Adapter, 1/4" Male NPT x 7/16-20 Male JIC 37°	10130
10	1	Switch, Pressure 250/1000 PSI	87052
11	1	Fitting, 1/8" Female NPT x Male 7/16-20 JIC 37°	87623
12	2	Jumper Assembly, 12 Gauge x 4"	73943A
13	1	Pump Assembly, UVL Power Pack - 12 Volt	36383
14	1	Fitting, 3/8" Male NPT x 3/8" Barbed	87618
15	2	Clamp, Hose - 5/8" O.D. - Worm Drive	84325
16	1	Tubing, 3/8" x 5/8", Tygothane - Clear	82066R012
17	1	Plug, 3/8" Plastic Tube	81580
18	1	Plug, 1/8" Plastic Tubing	81583
19	1	Tube, 1/4" O.D. x 1/8" I.D. - Plastic	81557R014
20	1	Diode Assembly, Up Solenoid	73906A
21	1	Eyelet, 5/16" Insulated - Red	86267
22	1	Fitting, 90°-1/8" Male Pipe x 1/8" Barbed	87563
23	1	Diode Assembly, Down Valve Solenoid	73907A
24	1	Terminal, 1/4" Male Spade - Fully Insulated - 14/16 Gauge	78036
25	1	Circuit Breaker, 20 Amp	16453
26	2	Screw, #10-32 x 3/8", Pan Head, Phillips, Thread Cut	82755
27	1	Washer, .326" X .562" X .042"-SS	83583
28	5	Bumper, 1/2" Dia. x 1/4" Tall - Rubber	82064
29	1	Electrical Board Assembly / 12 Volt / RoHS	73900LFCE-12V
30	1	Chip, UVL 600 Program Stow Lock	85900-102
31	6	Screw, #6 x 3/8" Self Tap, Flat Head	82764
32	1	Bracket, PC Board Mounting	73824NW-02
33	6	Standoff, .25" PCB - Nylon	86739
34	1	Edge Liner, 1/8", Q-Trim	13910R006
35	2	Edge Liner, 1/8", Q-Trim	13910R008
36	1	Clip, Cable - 7/16" Plastic	15777
37	1	Solenoid, Motor UVL - 12V	28308
38	1	Clamp, Hose	17069
39	1	Power Cable, Up Solenoid to Motor	29049
40	1	Tag, Caution Do Not Connect - Red (Not Shown)	81796
41	1	Cable Tie, 14 1/2" (Not Shown)	24534
42	1	Kit, Fuse Replacement (Not Shown)	36676K
43	1	Fuse, 5 Amperes	85835
44	4	Relay, 30 Amperes, 12 Volt	13259
45	1	Tag, Vent Tube Plug Removal - UVL (Not Shown)	25807
46	1	Cable Tie, 3 3/4" x .09", White (Not Shown)	86003
47	1	Hand Control Assembly	73946A-100-1
48	1	Pump Cover (Cover Assembly 73820A-04 Includes Items 48-55)	73820-03
49	1	Decal, UVL Patent & Trademark (Not Shown)	29884
50	1	Decal, Electrical Components-Lift-Intl-UVL (Not Shown)	36650
51	1	Decal, Fuse Specifications-Intl-UVL (Not Shown)	36644
52	1	Decal, Electrical Components-Module-Intl-UVL (Not Shown)	36649
53	1	Decal, Hazard-Electrical Shock-Intl-Pictoral (Not Shown)	36513
54	1	Decal, Warn Damage Control Board-ESD (Not Shown)	30787
55	1	Decal, Manual Operation - UVL (Not Shown)	28461
56	6	Screw, 1/4-20 x 3/8", Pan Head Phillips	82769
57	2	Clamp-Spring-Pump Handle	12350
58	2	Screw, 10-32 x 3/8" Flat Head Phillips	82767
59	2	Washer, #10 Flat	11541
60	2	Nut, #10-32 Hex	11542
61	1	Handle, Pump	17206A
62	1	Bracket, Power Pack Mounting	73825
63	2	Washer, 1/4" External Star Tooth Lock	83588
64	1	Ground Cable - Black	68874

UVL601C / UVL603C (12V) Pump Module Diagram


"PUMP T" WIRE ON ELECTRICAL BOARD
"VALVE T" WIRE ON ELECTRICAL BOARD
TO DOWN VALVE
"12V" WIRE ON ELECTRICAL BOARD
TO DOWN VALVE
"GROUND" WIRE ON ELECTRICAL BOARD
"12V POWER" WIRE ON ELECTRICAL BOARD

NOTICE

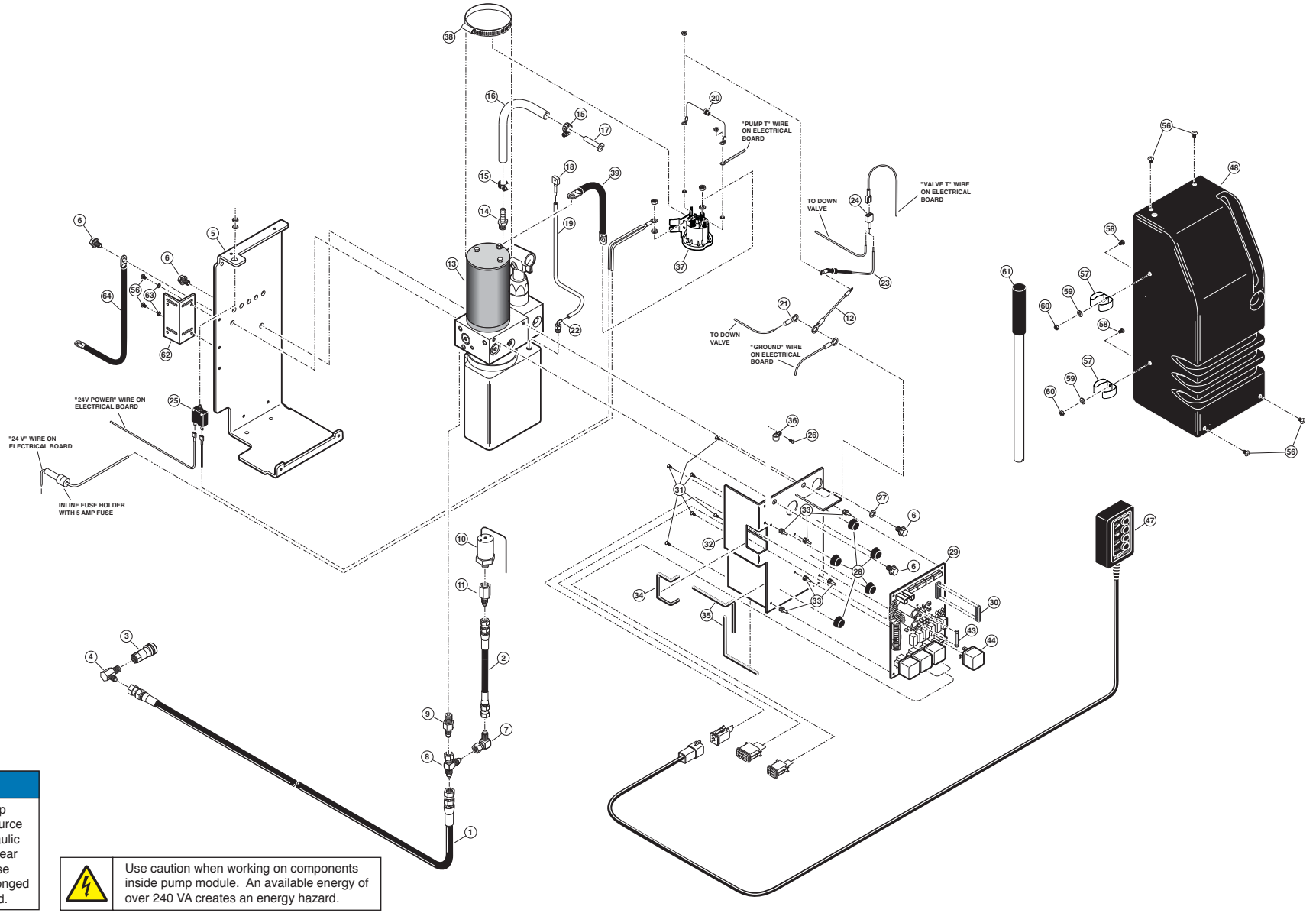
Remove power from pump module and any spark source before working with hydraulic fluid and components. Wear proper eye protection. Use protective gloves for prolonged contact with hydraulic fluid.

Use caution when working on components inside pump module. An available energy of over 240 VA creates an energy hazard.

UVL603C24 (24V) Pump Module Parts List

Item	Qty.	Description	Part No.
		Pump Module, Complete (Items 1-46)	73800AC24-04
1	1	Hose Assembly, 3/16" Diameter x 82"- Female 7/16-20 JIC 37°-SW/SW	35262A-82
2	1	Hose Assembly, 1/8" Diameter x 4"- Female 7/16-20 JIC 37°-SW/SW	16004A-004
3	1	Coupling, Hydraulic Quick Connect x 1/4" Female NPT	87614
4	1	Fitting, 90°- Male 7/16-20 JIC 37° x 1/4" Male NPT	87569
5	1	Plate, Power Pack Mounting	73822-2
6	4	Screw, 5/16-18 x 1/2", Serrated Washer Head, Hex	82881
7	1	Fitting, 90°-Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37°	87592
8	1	Fitting, Tee - Female Swivel 7/16-20 JIC 37° x Male 7/16-20 JIC 37° x 2	87587
9	1	Adapter, 1/4" Male NPT x 7/16-20 Male JIC 37°	10130
10	1	Switch, Pressure 250/1000 PSI	87052
11	1	Fitting, 1/8" Female NPT x Male 7/16-20 JIC 37°	87623
12	1	Jumper Assembly, 12 Gauge x 4"	73943A
13	1	Pump Assembly, UVL Power Pack - 24 Volt	87060-24V
14	1	Fitting, 3/8" Male NPT x 3/8" Barbed	87618
15	2	Clamp, Hose - 5/8" O.D. - Worm Drive	84325
16	1	Tubing, 3/8" x 5/8", Tygothane - Clear	82066R012
17	1	Plug, 3/8" Plastic Tube	81580
18	1	Plug, 1/8" Plastic Tubing	81583
19	1	Tube, 1/4" O.D. x 1/8" I.D. - Plastic	81557R014
20	1	Diode Assembly, Up Solenoid	73906A
21	1	Eyelet, 5/16" Insulated - Red	86267
22	1	Fitting, 90°-1/8" Male Pipe x 1/8" Barbed	87563
23	1	Diode Assembly, Down Valve Solenoid	73907A
24	1	Terminal, 1/4" Male Spade - Fully Insulated - 14/16 Gauge	78036
25	1	Circuit Breaker, 8 Amp - Manual Reset	30364
26	1	Screw, #10-32 x 3/8", Pan Head, Phillips, Thread Cut	82755
27	1	Washer, .326" X .562" X .042"-SS	83583
28	5	Bumper, 1/2" Dia. x 1/4" Tall - Rubber	82064
29	1	Electrical Board Assembly / 24 Volt / RoHS	73900LFCE-24V-2
30	1	Chip, UVL 600 Program Stow Lock	85900-102
31	6	Screw, #6 x 3/8" Self Tap, Flat Head	82764
32	1	Bracket, PC Board Mounting	73824NW-02
33	6	Standoff, .25" PCB - Nylon	86739
34	1	Edge Liner, 1/8", Q-Trim	13910R006
35	2	Edge Liner, 1/8", Q-Trim	13910R008
36	1	Clip, Cable - 7/16" Plastic	15777
37	1	Solenoid, Motor UVL - 24V	32930
38	1	Clamp, Hose	17069
39	1	Power Cable, Up Solenoid to Motor	29049
40	1	Tag, Caution Do Not Connect - Red (Not Shown)	81796
41	1	Cable Tie, 14 1/2" (Not Shown)	24534
42	1	Kit, Fuse Replacement (Not Shown)	36676K
43	1	Fuse, 5 Amperes	85835
44	4	Relay, 12/20 Amperes, 24 Volt	168001-1416
45	1	Tag, Vent Tube Plug Removal - UVL (Not Shown)	25807
46	1	Cable Tie, 3 3/4" x .09", White (Not Shown)	86003
47	1	Hand Control Assembly	73946A-100-1
48	1	Pump Cover (Cover Assembly 75820A-09 Includes Items 48-55)	75820-09
49	1	Decal, UVL Patent & Trademark (Not Shown)	29884
50	1	Decal, Electrical Components-Lift-Intl-UVL (Not Shown)	36650
51	1	Decal, Fuse Specifications-Intl-UVL (Not Shown)	36644
52	1	Decal, Electrical Components-Module-Intl-UVL (Not Shown)	36649
53	1	Decal, Hazard-Electrical Shock-Intl-Pictoral (Not Shown)	36513
54	1	Decal, Warn Damage Control Board-ESD (Not Shown)	30787
55	1	Decal, Manual Operation - UVL (Not Shown)	28461
56	6	Screw, 1/4-20 x 3/8", Pan Head Phillips	82769
57	2	Clamp-Spring-Pump Handle	12350
58	2	Screw, 10-32 x 3/8" Flat Head Phillips	82767
59	2	Washer, #10 Flat	11541
60	2	Nut, #10-32 Hex	11542
61	1	Handle, Pump	17206A
62	1	Bracket, Power Pack Mounting	73825
63	2	Washer, 1/4" External Star Tooth Lock	83588
64	1	Ground Cable - Black	68874

UVL603C24 (24V) Pump Module Diagram


"PUMP T" WIRE ON ELECTRICAL BOARD
"VALVE T" WIRE ON ELECTRICAL BOARD
TO DOWN VALVE
TO DOWN VALVE
"GROUND" WIRE ON ELECTRICAL BOARD
"24V POWER" WIRE ON ELECTRICAL BOARD
"24 V" WIRE ON ELECTRICAL BOARD
INLINE FUSE HOLDER WITH 5 AMP FUSE

NOTICE

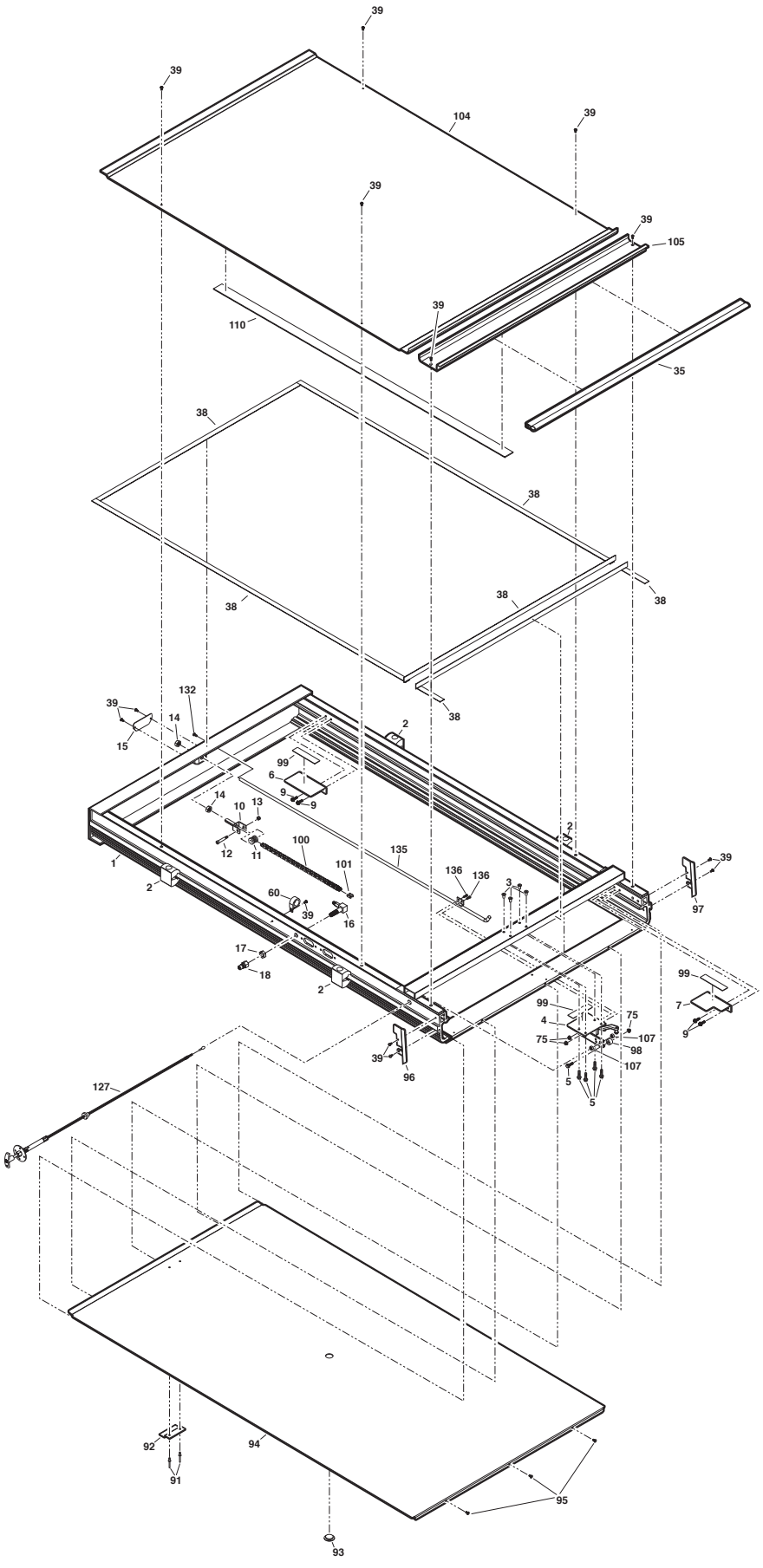
Remove power from pump module and any spark source before working with hydraulic fluid and components. Wear proper eye protection. Use protective gloves for prolonged contact with hydraulic fluid.

Use caution when working on components inside pump module. An available energy of over 240 VA creates an energy hazard.

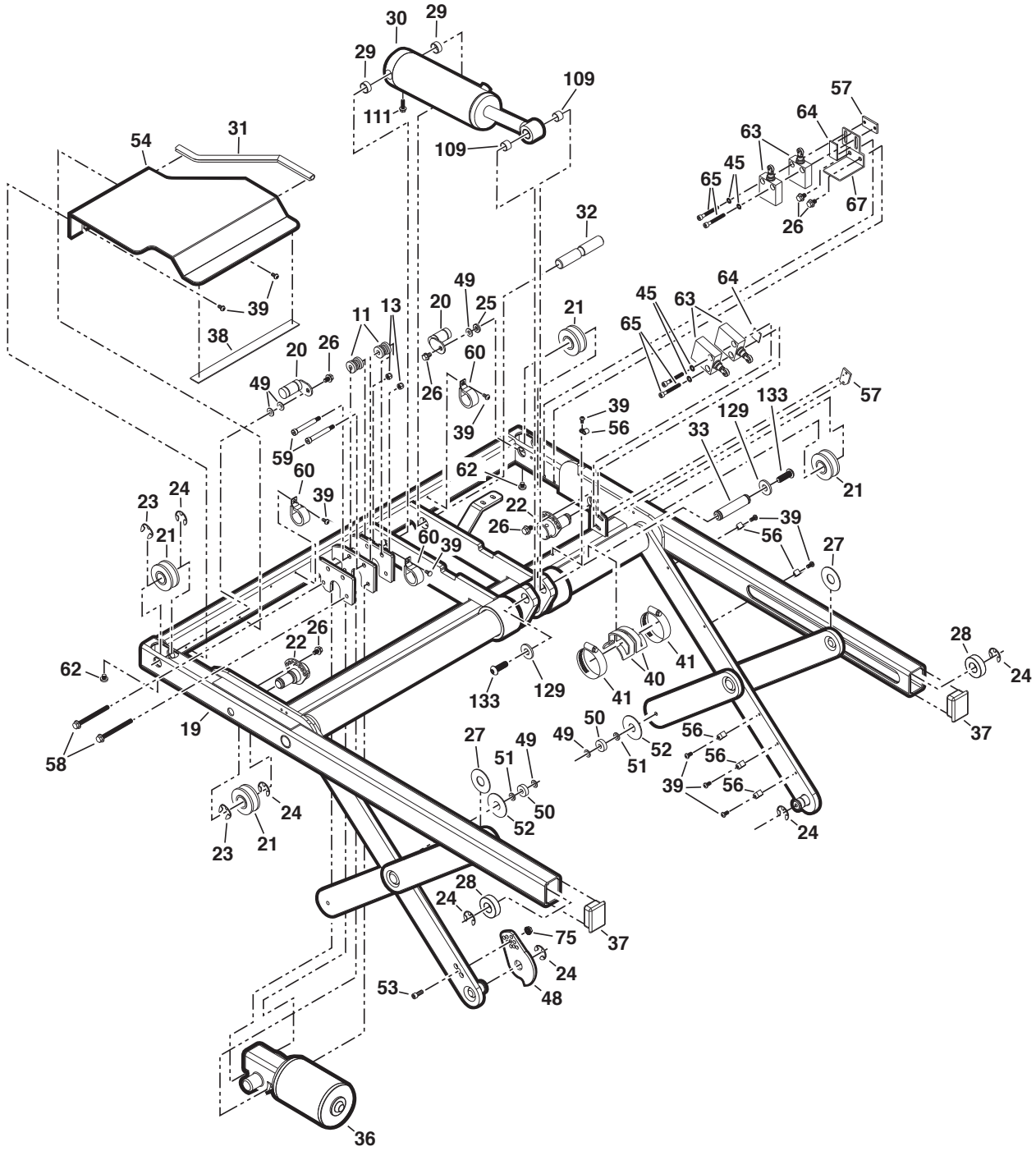
UVL601C - Repair Parts List

Item	Qty.	Description	Part No.
1	1	Housing Weldment	71101W-2
2	4	Clamp, Lift Mounting	73733
3	4	Nut, 1/4" NC Rivet	83020
4	1	Chain Release Assembly	73760A
5	5	Screw, 1/4-20 x 1, Serrated Hex	82760
6	1	Bracket, In-Out Cam, Inboard	73774
7	1	Bracket, In-Out Cam, Outboard	73775
8	2	Bearing, 1/2" ID. x 1/2" Split	84391
9	4	Screw, 1/4-20 x 3/4", Washer Head	24750
10	1	Chain Tensioner Weldment	76750W
11	3	Roller, Chain Idler, Nylon	73706
12	1	Screw, 5/16 x 1 1/4" Shoulder, Soc. Hd., 1/4-20	82751
13	3	Nut, 1/4-20 Nylock, Full Thread	83070
14	2	Nut, 1/2-20, Hex, Jam	83022
15	1	Cover, Chain Tensioner	71754
16	1	Fitting Assembly, Bulk Head	73777A
17	1	Nut, 9/16-18 Hex Jam ZP	83077
18	1	Nipple, Hydraulic Quick Disconnect	87615
19	1	Carriage Weldment	71201W
20	2	Shaft Bearing Weldment	73230W
21	4	Bearing, Track Roller 20 x 52mm	84305
22	2	Shaft, Eccentric Bearing Weldment	73233W
23	2	E-Clip 3/4" Bowed .580 Groove	84377
24	8	E-Clip 3/4" .580 Groove DIA	84376
25	1	Washer, .2811" ID x .625" OD x .055"	83511
26	6	Screw, 1/4-20 x 3/8", Serrated Hex	82761
27	2	Washer, Front Scissor Arm	73748
28	2	Bearing, 1 5/8" O.D. x 3/4" I.D.	84004
29	2	Bushing, 3/4" ID x 3/8", Peer12FB06	900-0455
30	1	Cylinder, Assembly, 600 UVL	73801A
31	1	U-Channel, Edge Trim	82000R012
32	1	Pin, Cylinder Rod Mounting Long	73700
33	1	Pin, Cylinder Rod Mounting	73701-05
34	1	Grommet, 1.25” DIA x .25” Wide	84386
35	1	Seal, Crimp On Edge	82070R036
36	1	Motor, Electric, In/Out - w/Sprocket and Dowel	73780AS
37	2	Plug, 1 1/2" x 2" x 11 Gauge Tube	81582
38	1	Tape, 1/16" x 3/4" Double Face	82033R333
39	27	Screw, 10-32 x 3/8" Pan Head, Thread Cut	82755
40	2	Cam, Torque Shaft Actuator	73712
41	2	Clamp, 1 5/16" x 2 1/4" x 1/2", Worm Drive	26400
42	1	Weldment, Roll Stop, UVL600	71321W
43	1	Platform Weldment	71301CW
44	2	E-Clip, 3/8" Shaft	84383
45	6	Washer, #10 Internal Tooth	11540
46	2	Screw, 5/16-24 x 7/8", Flat Hd. Soc. Cap	82763
47	2	Retainer, Scissor Bearing	73737
48	1	Cam, Rear Barrier	74403
49	4	Washer, .328" x .562" x .042"	83583
50	2	Bearing, Scissor Platform	84321
51	2	Washer, Rear Scissor Bearing	73755
52	2	Washer, Rear Scissor Arm	73749
53	1	Bolt, 1/4-20 x 5/8" Socket Head	82333
54	1	Shield, Carriage Wire Harness	73742
55	2	Washer, .390 x .625 x .073, SS	83585
56	6	Clamp, 1/4" ID Nylon Loop, Black	84396
57	3	Plate, Switch Bracket, Tap	68280-2
58	2	Screw, 1/4-20 x 2 3/4", Serrated Hex	82759
59	2	Screw, 5/16 x 2 SHLD SKT HD 1/4-20 SS	82758
60	4	Clamp, Insulate 1"	20535
61	1	Plate, Rear Barrier (15")	71401-15
62	2	Screw, 1/4-20 x 1/4 Pan Head Nylon	82773
63	5	Limit Switch Assembly	73950A
64	3	Tape, Limit Switch Mounting Pad	73747
65	4	Screw, 10-32 x 1 1/2", Socket Cap	82717
66	2	Screw, 10-32 x 7/8", Socket Cap	82778
67	1	Bracket, Switch In/Out Mounting	73719
68	1	Nut, 5/16-24 LH Hex Jam ZP	83076
69	1	Skid, Rear Barrier	74402-15
70	2	Nut, 10-32 Serrated Flange ZP	83080
71	2	Screw, 10-32 x 5/8" PH PN SS	82884
72	1	Shaft, Rear Barrier Hinge	74413
73	1	Closure, Weldment, NUVL603C	71330W
74	1	Cover, Platform Wiring Harness	75305
75	4	Nut, 1/4-20, Serrated Flange	83064
76	8	Screw, 1/4-20 UNC x 3/8 RD. HD.	12514
77	2	Spring, Torsion	85101
78	1	Barrier Actuator Assembly	74340-3
79	1	Screw, 1/2" x 2" SHLD SKT HD x 3/8-16	82770
80	1	Arm, Weldment, Barrier Clevis	73325W-2
81	1	Ring, Clevis Pin 5/16"	11390
82	1	Clip, Hairpin, 5/16" DIA Shaft	84382
83	1	Screw, 1/2 x 1 1/4" SHLD SKT HD x 3/8-16	82771
84	1	Spring, Lower Closure Torsion	73335
85	1	Plate, Platform Floor	71306C
86	1	Hinge Weldment Rear Barrier	71420W
87	1	Ring, Retaining 5/8"	84189
88	1	Catch, Weldment, Rear Barrier	74415W
89	1	Block, Nylon Slider Inside	74410
90	1	Block, Nylon Slider Outside	74409
91	2	Rivet, Pop, SD64BS-3/16"- .13/.25, Auto Black	11513
92	1	Bracket, Lower Housing Cover	73108
93	1	Plug, Poly Finish, 1" Hole, Black	81576
94	1	Cover, Lower	71732-2
95	3	Screw, 10-32 x 3/8", Flat HD PH ZP	82767
96	1	Lip, LH Side Seal	73745
97	1	Lip, RH Side Shield	73744
98	1	Cam, 7/8" UVL Follower	84052
99	1	Tape, 1" Wide S-Face Foam	82015R
100	1	Chain, Nickel Plated Roller, #35	84314R120
101	1	Connector Link, #35 Chain	84317
102	1	Rod End, 5/16-24 Male	84384
103	4	Screw, 1/4-20 x 1 1/2" Washer HD TYPF	24751
104	1	Cover, Upper	71730-2
105	1	Lid, Upper Edge Seal	71746
106	1	Spring, Barrier Clevis Tension	85098
107	2	Nut, 3/8-24 Jam, ZP	83074
108	1	Bolt, 1/4-20 x 1/2" Socket Low HD	82335
109	2	Bearing, 5/8” ID. x 1/2” Long	84319
110	1	Tape, 1/8 x 2" Foam Adhesive	82054R048
111	1	Screw, 1/4-20 x 3/4 SERR HEX ZP	82768
112	1	Rod End, 5/16-24 Left Hand Male	84385
113	1	Nut, 5/16-24 Hex, Jam ZP	83075
114	3	Nut, 5/16-24 Nylock Plated	83079
115	1	Tie Rod, Rear Barrier	74407
116	1	Bolt, 5/16-24 x 1" SKT BTN PLTD	82348
117	1	Block, Rear Barrier Slider	74408
118	1	Rocker, Rear Barrier	74404
119	1	Bolt, 5/16-24 x 2 1/4" SKT Flat	82346
120	1	Bolt, 5/16-24 x 2" SKT Flat Plated	82347
121	1	Link, Rear Barrier	74406
122	1	Bearing, Split 1/4" I.D. x 1/4" Long	84395
123	1	Bushing, Link, Rear Barrier	74411
124	2	Pin, .25" x .81" Dowel	74412
125	1	Bearing, 5/8 I.D. x 5/8" LG Split	84394
126	1	Washer, .281 x .75 x .06 Brass	83592
127	1	Manual Release Cable Assy. Kit	73770-600
128	1	Cam Follower, 1/4 I.D. x 3/4" O.D. x .5"	84392
129	2	Washer, 5/16" Flat	10063
130	1	Link/Rocker Assembly - IB	74431A
131	1	Sponge Strip, 1/2" x 1/4"	82063R036
132	1	Bolt, 5/16-24 x 3/4” BHCS, SS	29863
133	2	Screw, 5/16-18 x 1/2” BHSC-BLK/Auto-BK	26281
134	2	Bearing, .75 I.D. x .25 LG Split - 12DU04	84282
135	1	WMT, Bridgeplate Guide	30840W
136	2	Bolt, 1/4-20 x 1/2" Hex	21988
137	1	O-Ring, 7/16" I.D. x 5/8" O.D. Viton 75	87861
138	1	Pin, Clevis Release	73741-2

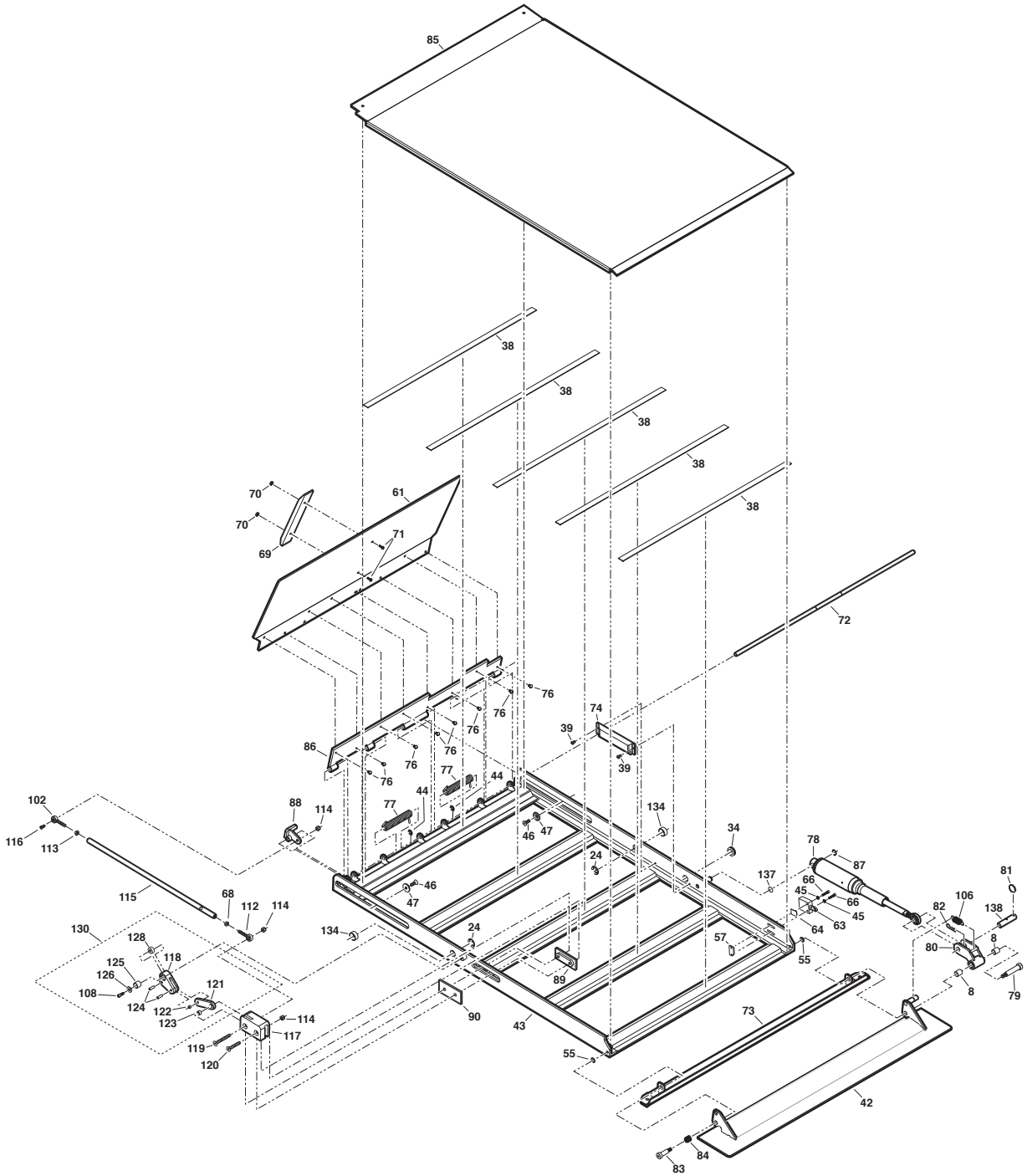
UVL601C - Housing Exploded View Detail



UVL601C - Carriage Exploded View Detail



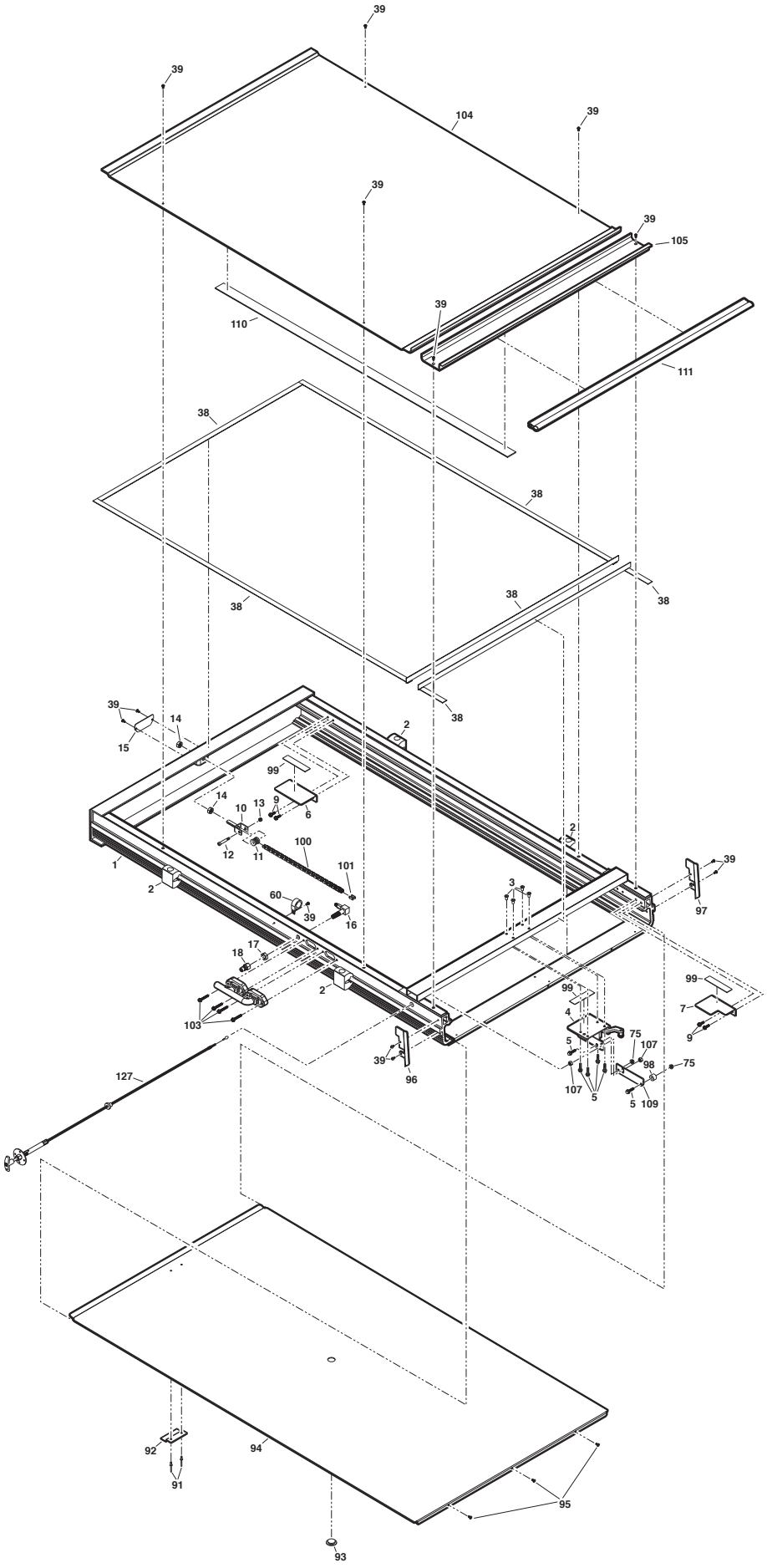
UVL601C - Platform Exploded View Detail



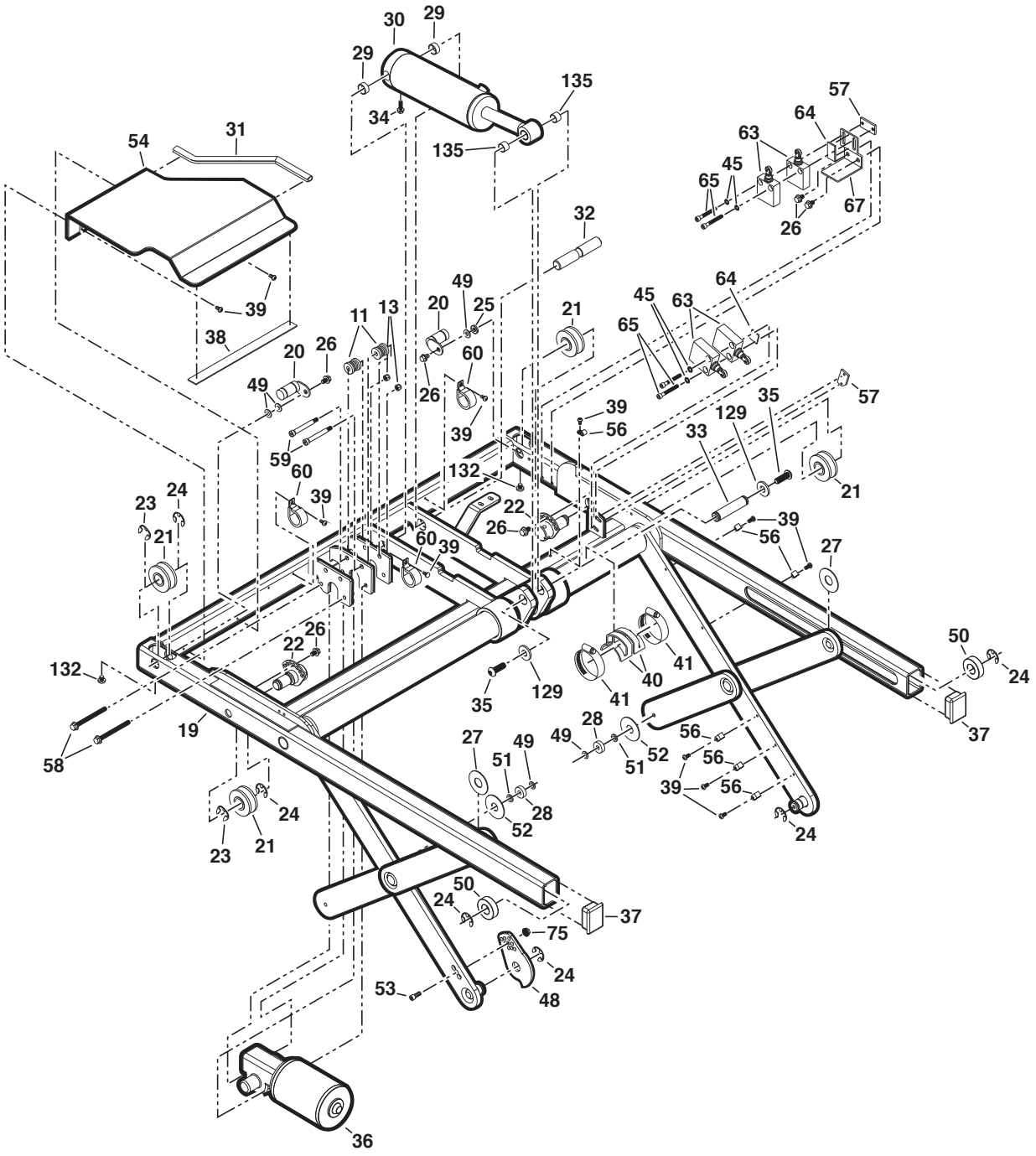
UVL603C / UVL603C24 - Repair Parts List

Item	Qty.	Description	Part No.
1	1	Housing Weldment	73101W-2
2	4	Clamp, Lift Mounting	73733
3	4	Nut, 1/4" NC Rivet	83020
4	1	Chain Release Assembly	73760A
5	6	Screw, 1/4-20 x 1", Serrated Hex	82760
6	1	Bracket, In-Out Cam, Inboard	73774
7	1	Bracket, In-Out Cam, Outboard	73775
8	2	Bearing, 1/2" ID. x 1/2" Split	84391
9	4	Screw, 1/4-20 x 3/4", Washer Head	24750
10	1	Chain Tensioner Weldment	76750W
11	3	Roller, Chain Idler, Nylon	73706
12	1	Screw, 5/16" x 1 1/4" Shoulder, Soc. Hd.,1/4-20	82751
13	3	Nut, 1/4-20 Nylock, Full Thread	83070
14	2	Nut, 1/2-20, Hex, Jam	83022
15	1	Cover, Chain Tensioner	71754
16	1	Fitting Assembly, Bulk Head	73777A
17	1	Nut, 9/16-18 Hex Jam ZP	83077
18	1	Nipple, Hydraulic Quick Disconnect	87615
19	1	Carriage Weldment	73201W
20	2	Shaft Bearing Weldment	73230W
21	4	Bearing, Track Roller 20 x 52mm	84305
22	2	Shaft, Eccentric Bearing Weldment	73233W
23	2	E-Clip 3/4" Bowed .580" Groove	84377
24	8	E-Clip 3/4" .580" Groove DIA	84376
25	1	Washer, .2811" ID x .625" OD x .055"	83511
26	6	Screw, 1/4-20 x 3/8", Serrated Hex	82761
27	2	Washer, Front Scissor Arm	73748
28	2	Bearing, Scissor Platform	84321
29	2	Bushing, 3/4" ID x 3/8", Peer12FB06	900-0455
30	1	Cylinder, Assembly, 600 UVL	73801A
31	1	U-Channel, Edge Trim	82000R012
32	1	Pin, Cylinder Rod Mounting Long	73700
33	1	Pin, Cylinder Rod Mounting	73701-05
34	1	Screw, 1/4-20 x 3/4" SERR HEX ZP	82768
35	2	Screw, 5/16-18 x 1/2" BHSC-BLK/Auto-BK	26281
36	1	Motor, Electric, In/Out - w/Sprocket & Dowel (UVL603C)	73780AS
	1	Motor, Electric, In/Out - w/Sprocket & Dowel (UVL603C24)	73780A24
37	2	Plug, 1 1/2" x 2" x 11 Gauge Tube	81582
38	1	Tape, 1/16" x 3/4" Double Face	82033R333
39	27	Screw, 10-32 x 3/8" Pan Head, Thread Cut	82755
40	2	Cam, Torque Shaft Actuator	73712
41	2	Clamp, 1 5/16" x 2 1/4" x 1/2", Worm Drive	26400
42	1	Barrier, Weldment, UVL600	73321W
43	1	Platform Weldment	73301NW
44	2	E-Clip, 3/8" Shaft	84383
45	6	Washer, #10 Internal Tooth	11540
46	2	Screw, 5/16-24 x 7/8", Flat Hd. Soc. Cap	82763
47	2	Retainer, Scissor Bearing	73737
48	1	Cam, Rear Barrier	74403
49	4	Washer, .328" x .562" x .042"	83583
50	2	Bearing, 1 5/8" O.D. X 3/4" I.D.	84004
51	2	Washer, Rear Scissor Bearing	73755
52	2	Washer, Rear Scissor Arm	73749
53	1	Bolt, 1/4-20 x 5/8" Socket Head	82333
54	1	Shield, Carriage Wire Harness	73742
55	2	Washer, .390" x .625" x .073", SS	83585
56	6	Clamp, 1/4" ID Nylon Loop, Black	84396
57	3	Plate, Switch Bracket, Tap	68280-2
58	2	Screw, 1/4-20 x 2 3/4", Serrated Hex	82759
59	2	Screw, 5/16" x 2" SHLD SKT HD 1/4-20 SS	82758
60	4	Clamp, Insulate 1"	20535
61	1	Plate, Rear Barrier - 8"	74401-8
62	1	Pin, Clevis Release	73741-2
63	5	Limit Switch Assembly	73950A
64	3	Tape, Limit Switch Mounting Pad	73747
65	4	Screw, 10-32 x 1 1/2", Socket Cap	82717
66	2	Screw, 10-32 x 7/8", Socket Cap	82778
67	1	Bracket, Switch In/Out Mounting	73719
68	1	Nut, 5/16-24 LH Hex Jam ZP	83076
69	1	Skid, Rear Barrier - 8"	74402-8
70	2	Nut, 10-32 Serrated Flange ZP (UVL603C)	83080
	4	Nut, 10-32 Serrated Flange ZP (UVL603C24)	83080
71	2	Screw, 10-32 x 5/8" PH PN SS	82884
72	1	Shaft, Rear Barrier Hinge	74413
73	1	Closure, Weldment	73330W
74	1	Cover, Platform Wiring Harness	73738
75	3	Nut, 1/4-20, Serrated Flange, Z/P	83064
76	8	Screw, 1/4-20 UNC x 3/8" RD. HD.	12514
77	2	Spring, Torsion	85101
78	1	Barrier Actuator Assembly (UVL603C)	74340-3
	1	Barrier Actuator Assembly (UVL603C24)	74340-24V-RMN
79	1	Screw, 1/2" x 2" SHLD SKT HD x 3/8-16	82770
80	1	Arm, Weldment, Barrier Clevis	73325W-2
81	1	Ring, Clevis Pin 5/16"	11390
82	1	Clip, Hairpin, 5/16" DIA Shaft	84382
83	1	Screw, 1/2" x 1 1/4" Shoulder Socket Head x 3/8-16	82771
84	1	Spring, Lower Closure Torsion	73335
85	1	Plate, Platform Floor	74306-1
86	1	Hinge Weldment Rear Barrier	74420W
87	1	Ring, Retaining 5/8"	84189
88	1	Catch, Weldment, Rear Barrier	74415W
89	1	Block, Nylon Slider Inside	74410
90	1	Block, Nylon Slider Outside	74409
91	2	Rivet, Pop, SD64BS-3/16"- .13"/.25", Auto Black	11513
92	1	Bracket, Lower Housing Cover	73108
93	1	Plug, Poly Finish, 1" Hole, Black	81576
94	1	Cover, Lower	73732-2
95	3	Screw, 10-32 x 3/8", Flat HD PH ZP	82767
96	1	Lip, LH Side Seal	73745
97	1	Lip, RH Side Shield	73744
98	1	Cam, 7/8" UVL Follower	84052
99	1	Tape, 1" Wide S-Face Foam	82015R
100	1	Chain, Nickel Plated Roller, #35	84314R120
101	1	Connector Link, #35 Chain	84317
102	1	Rod End, 5/16-24 Male	84384
103	4	Screw, 1/4-20 x 1 1/2" Washer HD TYPF	24751
104	1	Cover, Upper	73730-2
105	1	Lid, Upper Edge Seal	73746
106	1	O-Ring, 7/16" ID x 5/8" OD Viton 75	87861
107	2	Nut, 3/8-24 Jam, ZP	83074
108	1	Bolt, 1/4-20 x 1/2" Socket Low HD	82335
109	1	Cam, Rear Barrier Fold	73414
110	1	Tape, 1/8" x 2" Foam Adhesive	82054R048
111	1	Seal, Crimp On Edge	82070R036
112	1	Rod End, 5/16-24 Left Hand Male	84385
113	1	Nut, 5/16-24 Hex, Jam ZP	83075
114	3	Nut, 5/16-24 Nylock Plated	83079
115	1	Tie Rod, Rear Barrier	74407
116	1	Bolt, 5/16-24 x 1" SKT BTN PLTD	82348
117	1	Block, Rear Barrier Slider	74408
118	1	Rocker, Rear Barrier	74404
119	1	Bolt, 5/16-24 x 2 1/4" SKT Flat	82346
120	1	Bolt, 5/16-24 x 2" SKT Flat Plated	82347
121	1	Link, Rear Barrier	74406
122	1	Bearing, Split 1/4" I.D. x 1/4" Long	84395
123	1	Bushing, Link, Rear Barrier	74411
124	2	Pin, .25" x .81" Dowel	74412
125	1	Bearing, 5/8" I.D. x 5/8" LG Split	84394
126	1	Washer, .281" x .75" x .06" Brass	83592
127	1	Manual Release Cable Assy. Kit	73770-600
128	1	Cam Follower, 1/4" I.D. x 3/4" O.D. x .5"	84392
129	2	Washer, 5/16" Flat	10063
130	1	Link/Rocker Assembly - IB	74431A
131	1	Sponge Strip, 1/2" x 1/4"	82063R036
132	2	Screw, 1/4-20 x 1/4" Pan Head Nylon	82773
133	1	Spring, Barrier Clevis Tension	85098
134	2	Bearing, .75" I.D. x .25" LG Split - 12DU04	84282
135	2	Bearing, 5/8" ID. x 1/2" Long	84319
136	1	Plate, Rear Barrier - 15"	73401N-15DS
137	1	Skid, Rear Barrier - 15"	74402-15
138	8	Screw, 1/4-20 UNC x 3/8" FL Soc Cap Head	23471
139	2	Spring, Torsion	85101EVO
140	1	Hinge Weldment Rear Barrier	74420NW
141	1	Skid, Rear Barrier	75414C
142	2	Screw, #10-32 x 1/2" FHDHXS - Auto Bk w/Patch	17192P
143	2	Screw, #10-32 x 1/2" PH PN ZP	82744

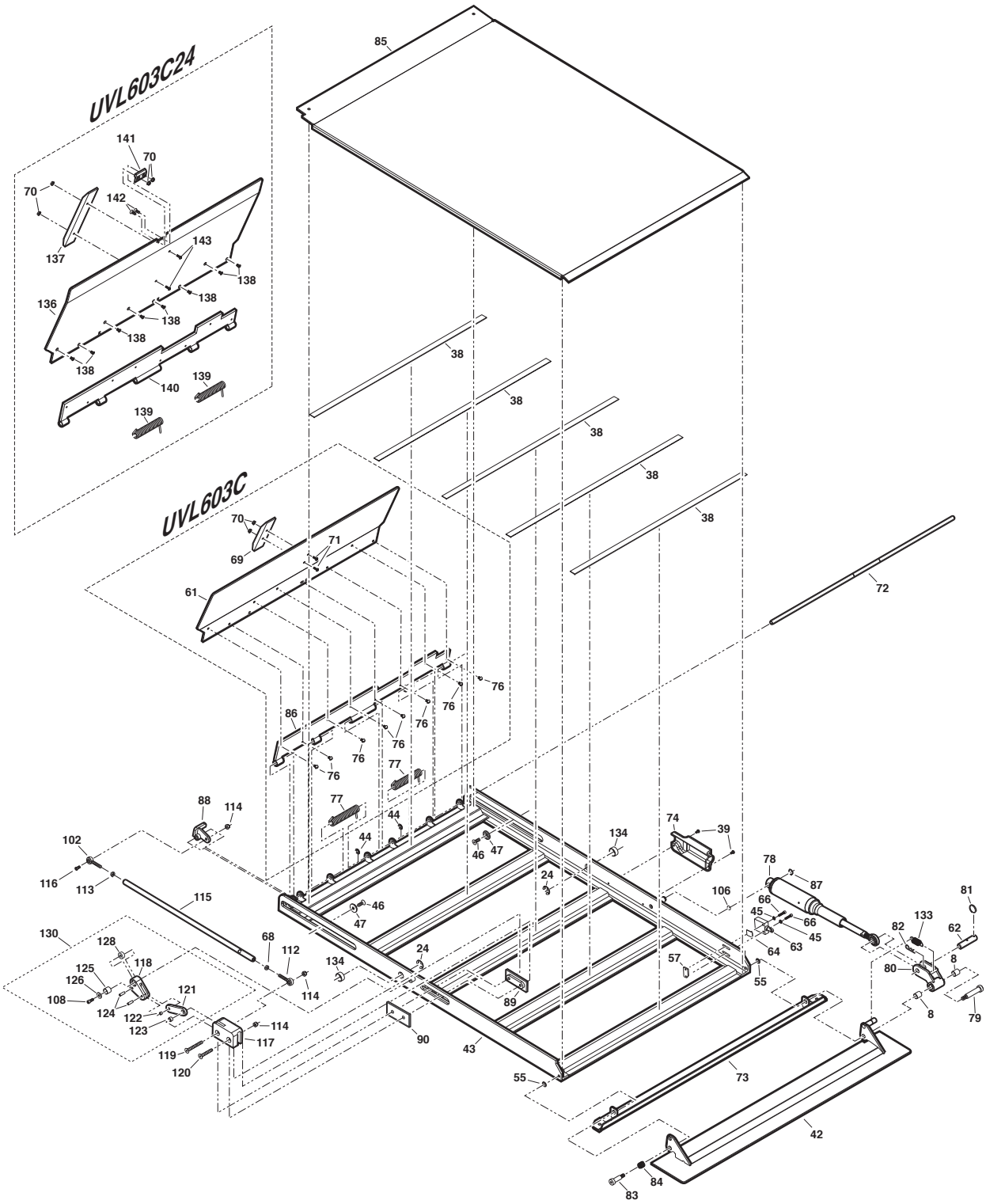
UVL603C / UVL603C24 - Housing Exploded View Detail



UVL603C / UVL603C24 - Carriage Exploded View Detail



UVL603C / UVL603C24 - Platform Exploded View Detail



THE BRAUN CORPORATION®

EC Declaration of Conformity With Council Directive 2006/42/EC CE	
Date of Issue:	1 December 2011
Directive:	Machinery Directive on machinery safety, 2006/42/EC
Conforming Machinery:	Hydraulic Lift System UVL601C Series 04 and Newer International Lifts UVL603C Series 04 and Newer International Lifts UVL603C24 Series 04 and Newer International Lifts UVL855R Series 09 and Newer International Lifts UVL855R24 Series 09 and Newer International Lifts
Manufacturer:	Braun Corporation 631 West 11th Street Winamac, IN 46996 USA
Authorized Representative:	Braun Corporation Authorized Representative AUTOADAPT AB Åkerivägen 7 S-443 61 Stenkullen SWEDEN Telephone: +46 (0) 302 254 00 E-mail: contact@autoadapt.se AUTOADAPT UK LTD Unit 1, Windsor Industrial Estate, Rupert Street Aston, Birmingham B7 4PR, UK Phone: +44 (0) 121 33 35 170 E-mail: contact@autoadapt.co.uk
Harmonized Standards Referenced or Applied:	BS EN 13857:2008, BS EN ISO 13850:2008, EN ISO 14121-1:2007, BS EN 349:1993+A1:2008, BS EN 953:1997+A1:2009, BS EN 1037:1995+A1:2008, BS EN 982:1996+A1:2008, BS EN 614-1:2006+A1:2009, EN 60204-1:2006, BS EN 1756-2:2004+A1:2009
Specifications with which Conformity is Declared:	Essential Health and Safety Requirements of Annex 1 of the Machinery Directive
We hereby certify that the machinery described above conforms with the essential health and safety requirements of Council Directive 2006/42/EC on the approximation of the laws of the Member States relating to the safety of machinery.	
Technical File Reference Number	SF10999A1.BC

Notes on Declared Standards referenced in the Declaration.

BS EN 13857:2008	Safety of machinery. Safety distances to prevent hazard zones being reached by upper and lower limbs.
BS EN ISO 13850:2008	Safety of machinery - Emergency stop - Principles for design.
EN ISO 14121-1:2007	Safety of machinery - Risk assessment - Part 1: Principles.
BS EN 349:1993+A1:2008	Safety of machinery. Minimum gaps to avoid crushing of parts of the human body.
BS EN 953:1997+A1:2009	Safety of machinery. Guards. General requirements for the design and construction of fixed and moveable parts.
BS EN 1037:1995+A1:2008	Safety of machinery. Prevention of unexpected start-up.
BS EN 982:1996+A1:2008	Safety of machinery. Safety requirements for fluid power systems and their components. Hydraulics.
BS EN 614-1:2006+A1:2009	Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles.
EN 60204-1:2006	Safety of machinery. Electrical equipment of machines. General requirements.
BS EN 1756-2:2004+A1:2009	Tail Lifts-Platform lifts for mounting on wheeled vehicles-Safety Requirements-Part 2: Tail lifts for passengers.

Declaration of Noise Emission

The Braun Corporation UVL International Series System Sound Pressure Levels per EN ISO 11202 as based on testing on similar models are as follows:

	Operating	Idle
L_{pAm} (Operator Position)	75 dB (A)	68 dB (A)
L_{pAm} (Bystander Position)	73 dB (A)	69 dB (A)

Ambient Correction Factor K3A calculated according to EN ISO 11204 Appendix A. 4 dB (A)

Measurements were made at a height of 1.5 m and 1 m from the Operator Position and Bystander positions.

The difference between the extraneous noise level and the sound intensity level at each measuring point is: $L_{pAm}\ \Delta$ = 6 dB (A)

The figures quoted are emission levels and are not necessarily safe working levels. While there is a correlation between the emission and exposure levels this cannot be used reliably to determine whether or not further precautions are required.

Factors that influence the actual level of exposure of the workforce include characteristics of the work room, the other sources of noise, etc. such as the number of machines and other adjacent processes. Also, the permissible level of exposure can vary from country to country.

This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

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USA

CE

THE BRAUN CORPORATION®

Declaration of Conformity With Directive 2004/108/EC	CE
Date of Issue:	1 December 2011
Directive:	Radio Interference of Vehicles 2004/108/EC
Conforming Machinery:	Hydraulic Lift System UVL601C Series 04 and Newer International Lifts UVL603C Series 04 and Newer International Lifts UVL603C24 Series 04 and Newer International Lifts UVL855R Series 09 and Newer International Lifts UVL855R24 Series 09 and Newer International Lifts
Manufacturer:	Braun Corporation 631 West 11th Street Winamac, IN 46996 USA
Authorized Representative:	Braun Corporation Authorized Representative AUTOADAPT AB Åkerivägen 7 S-443 61 Stenkullen SWEDEN Telephone: +46 (0) 302 254 00 E-mail: contact@autoadapt.se AUTOADAPT UK LTD Unit 1, Windsor Industrial Estate, Rupert Street Aston, Birmingham B7 4PR, UK Phone: +44 (0) 121 33 35 170 E-mail: contact@autoadapt.co.uk
Harmonized Standards Referenced or Applied:	EN50498:2010
We hereby certify that the machinery described above conforms with Directive 2004/108/EC.	
Technical File Reference Number	SF10999A1.BC

NOTES

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"Providing Access to the World"

Over 300 Braun Dealers Worldwide

THE BRAUN CORPORATION®

www.braunability.com/international ISO 9001:2008
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Phone: +1 574 946 6153 Fax: +1 574 946 4670

Service Manual for:

UVL601C
UVL603C
UVL603C24

Under-Vehicle Lift®

Series 04

Braun Limited Warranty

Consult your local Braun dealer regarding warranty policy.

www.braunlift.com/international

Patent #5,305,486

37274 Rev. A
January
2012

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www.braunability.com/international ISO 9001:2008

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All illustrations, descriptions and specifications in this manual are based on the latest product information available at the time of publication. The Braun Corporation reserves the right to make changes at any time without notice.

CE

Original Instructions

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